



**2200**



**marantz**

**model 2200**

*Stereophonic Receiver*

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## INTRODUCTION

This service manual was prepared for use by Authorized Warranty Stations and contains service information for Marantz Model 2200 Stereophonic Receiver.

Servicing information and voltage data included in this manual are intended for use by the knowledgeable and experienced technician only. All instructions should be read carefully. No attempt should be made to proceed without a good understanding of the operation of the receiver.

The parts list furnishes information by which replacement parts may be ordered from the Marantz Company. A simple description is included for parts which can usually be obtained through local suppliers.

### 1. P.W. Board

As can be seen from the circuit diagram, the chassis of Model 2200 consists of the following units. Each unit mounted on a printed circuit board is described within the square enclosed by a bold dotted line on the circuit diagram.

1. FM/AM Tuner .....	mounted on P.W. Board P100
2. Phono Amplifier .....	mounted on P.W. Board P400
3. Power Amplifier .....	mounted on P.W. Board P700
4. Power Supply .....	mounted on P.W. Board P800
5. Dial Lamp .....	mounted on P.W. Board PZ01
6. Monitor, Switch .....	mounted on P.W. Board PT01
7. Muting, Switch .....	mounted on P.W. Board PH01
8. Tone Amplifier .....	mounted on P.W. Board PE01



## 2. Test Equipment Required for Servicing

Table 1 lists the test equipment required for servicing the Model 2200 Receiver.

Item	Manufacturer and Model No.	Use
AM Signal Generator		Signal source for AM alignment.
Test Loop		Used with AM signal generator.
FM Signal Generator	Less than 0.3% distortion	Signal source for FM alignment.
Stereo Modulator	Less than 0.3% distortion	Stereo separation alignment and trouble shooting.
Frequency Counter		MPX oscillator adjustment (VCO).
Audio Oscillator	Weston Model CVO-100P, less than 0.02% residual distortion is required.	Sinewave and squarewave signal source.
Oscilloscope	High sensitivity with DC horizontal and vertical amplifiers.	Waveform analysis and trouble shooting, and ASO alignment.
VTVM	With AC, DC, RF range	Voltage measurements.
Circuit Tester		Trouble shooting.
AC Wattmeter	Simpson, Model 390	Monitors primary power to amplifier.
AC Ammeter	Commercial Grade (1-10A)	Monitors amplifier output under short circuit condition.
Line Voltmeter	Commercial Grade (0-150VAC)	Monitors potential of primary power to amplifier.
Variable Autotransformer (0-140VAC, 10 amps.)	Powerstat, Model 116B	Adjusts level of primary power to amplifier.
Shorting Plug	Use phono plug with 600 ohm across center pin and shell.	Shorts amplifier input to eliminate noise pickup.
Output Load (8 ohms, 0.5%, 100W)	Commercial Grade	Provides 8-ohm load for amplifier output termination.
Output Load (4 ohms, 0.5%, 100W)	Commercial Grade	Provides 4-ohm load for amplifier output termination.

**Table 1. Test Equipment Required for Servicing**

### 3. AM Alignment Procedure

#### 3.1 AM IF Alignment

1. Connect a sweep generator to the test point A or J105 and an alignment scope to J112.
2. Rotate each core of IF transformer L203 and L204 for maximum height and flat top symmetrical response.

#### 3.2 AM Frequency Range and Tracking Alignment

1. Set AM signal generator to 525 kHz. Turn the tuning capacitor fully closed (place the tuning pointer at the low end) and adjust the oscillator coil L202 for maximum audio output.
2. Set the signal generator to 1650 kHz. Place the tuning pointer in the high frequency end and adjust the oscillator trimmer on the oscillator tuning capacitor (CA-2) for maximum audio output.
3. Repeat steps 1 and 2 until no further adjustment is necessary.
4. Set the generator 600 kHz and tune the receiver to the same frequency and adjust a slug core of AM ferrite antenna for maximum output.
5. Set the generator to 1400 kHz and tune the receiver to the same frequency and adjust the trimming capacitors of Antenna (CA-1) for maximum output.
6. Repeat steps 4 and 5 until no further adjustment is necessary.

Note: During tracking alignment reduce the signal generator output as necessary to avoid AGC action.

### 4. FM Alignment Procedure

1. Connect an FM signal generator to the FM antenna terminals and an oscilloscope and an audio distortion analyzer to the tape output jacks on the rear panel.
2. Set the FM SG to 87.5 MHz and provide about 3 to 5  $\mu$ V. Place the tuning pointer at the low frequency end by rotating the tuning knob and adjust the core of oscillator coil L103 to obtain maximum audio output.
3. Set the FM SG to 108.5 MHz and provide about 3 to 5  $\mu$ V output. Rotate the tuning knob and place the tuning pointer at the high frequency end and adjust the trimming capacitor CF-3 for maximum output.
4. Repeat steps 2 and 3 until no further adjustment is necessary.
5. Set the FM SG to 90 MHz and tune the receiver to the same frequency. Decrease signal generator output until the audio output level decreases with the decreasing generator output. Adjust the antenna coil L101, RF coil L102 and IF transformer L105 for minimum audio distortion.
6. Set the FM SG to 106 MHz and tune the receiver to the same frequency. Adjust the trimming capacitor CF-1, CF-2 for minimum distortion.
7. Repeat steps 5 and 6 until no further adjustment is necessary.
8. Connect a DC VTVM with  $\pm 0.5$  volt range selected to the test point (E) (J116) and adjust the secondary core (upper) of discriminator transformer L106 so that no voltage reading is obtained on the VTVM at no signal.  
Next set the FM SG to 98 MHz and increase the output level to 1  $\mu$ V, then tune the receiver to the same frequency so that no deflection is obtained.  
Adjust primary core (bottom) of L106 for minimum distortion, and adjust the L107 for the maximum reading on the VTVM connected to the J114.

### 5. STEREO Separation Alignment

1. Set the FM SG to provide 1  $\mu$ V at 98 MHz.  
Tune the receiver to the same frequency perfectly.
2. Turn the FM SG modulation off (with the pilot signal turned off), connect a frequency counter to test point J120, and adjust R302 so that the frequency counter may precisely read 19 kHz.
3. Modulate the FM SG with stereo composite signal consisting of only subchannel signal (of course a pilot signal must be included).
4. Adjust the trimming resistor R301 for maximum and same separation in both channels.

#### 6. Muting Circuit Alignment

Set the FM SG output to provide  $25\ \mu\text{V}$  (IHF) at 98 MHz and tune the receiver to the same frequency.

Adjust the trimming resistor R161 for the threshold level of  $25\ \mu\text{V}$  (during this adjustment turn the MUTING pushswitch "on").

#### 7. Audio Adjustment

Connect a VTVM across the resistor R735 and adjust the trimming resistor R727 until the VTVM reads 10.0 mV DC.

For the other channel connect the VTVM across the R736 and adjust the R728 for the same reading.

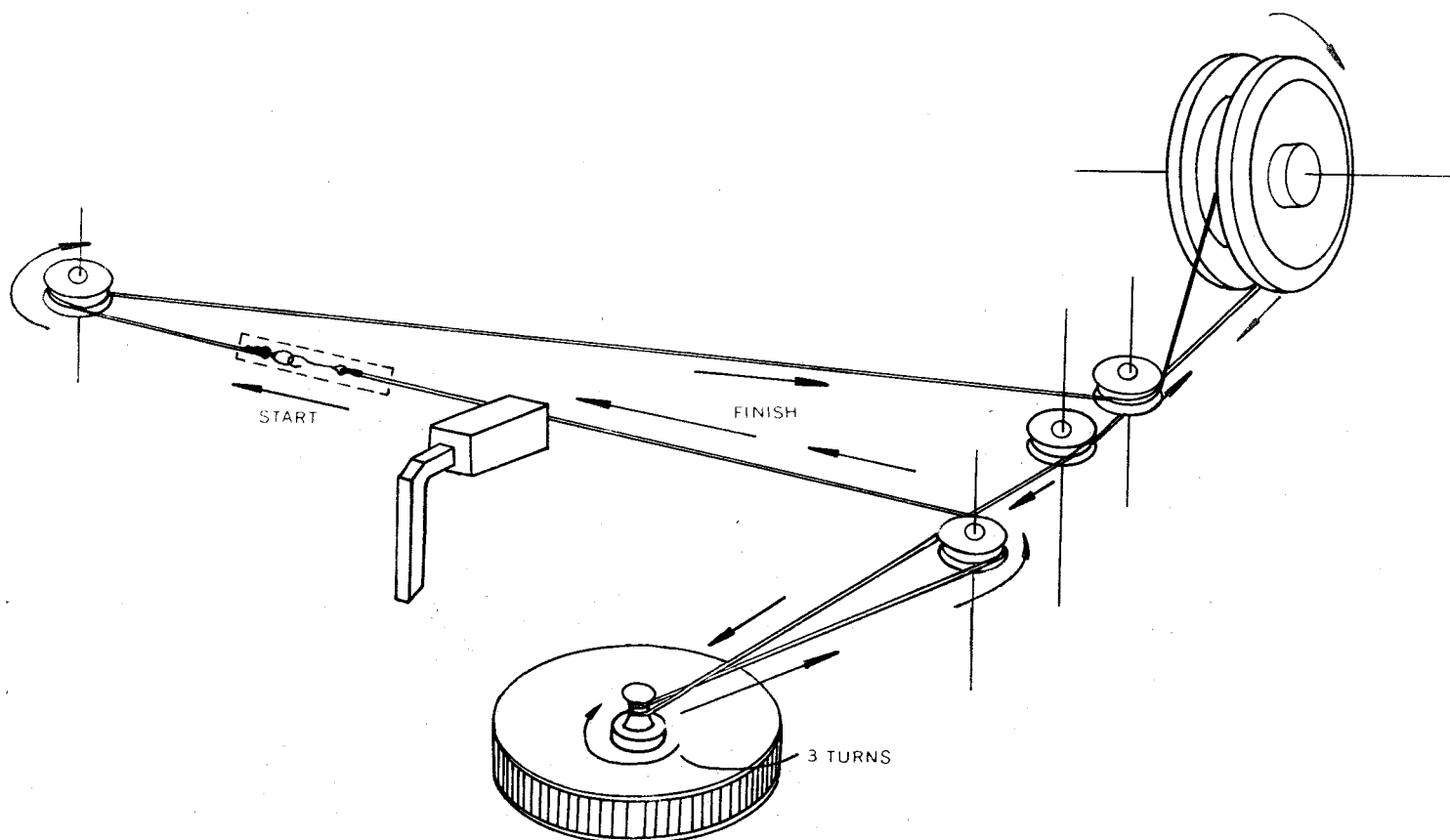


Figure 1. Dial Stringing

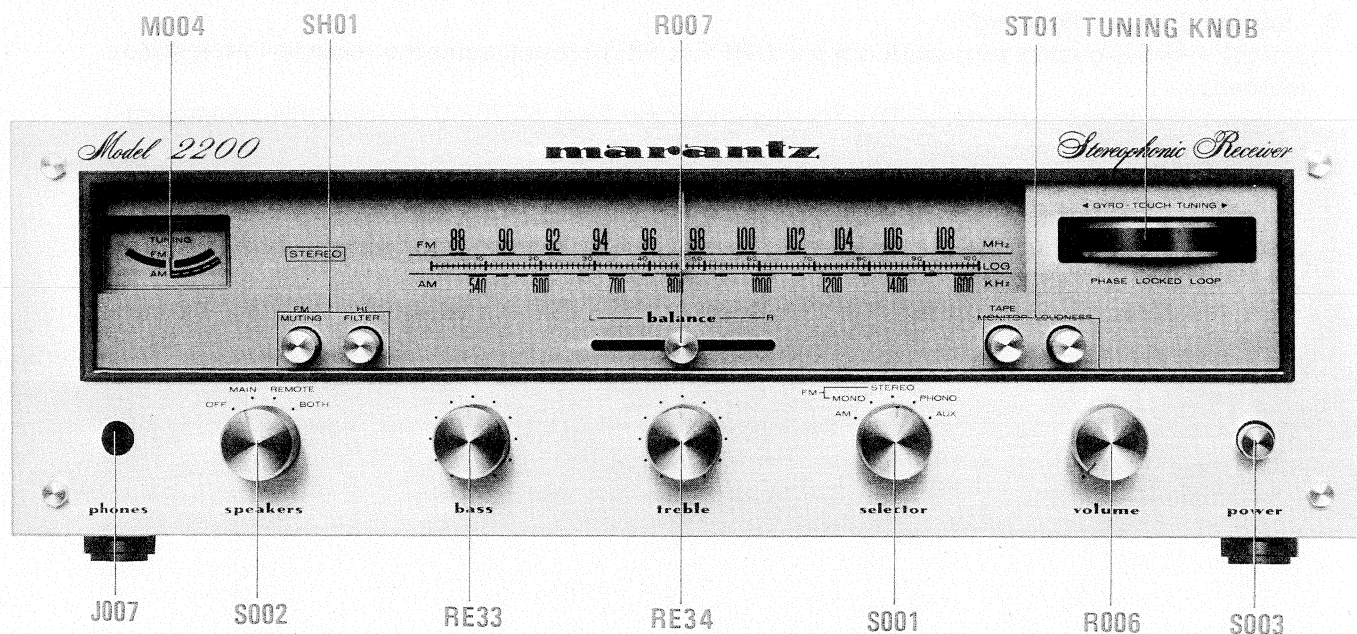


Figure 2. Front Panel Adjustment and Component Locations

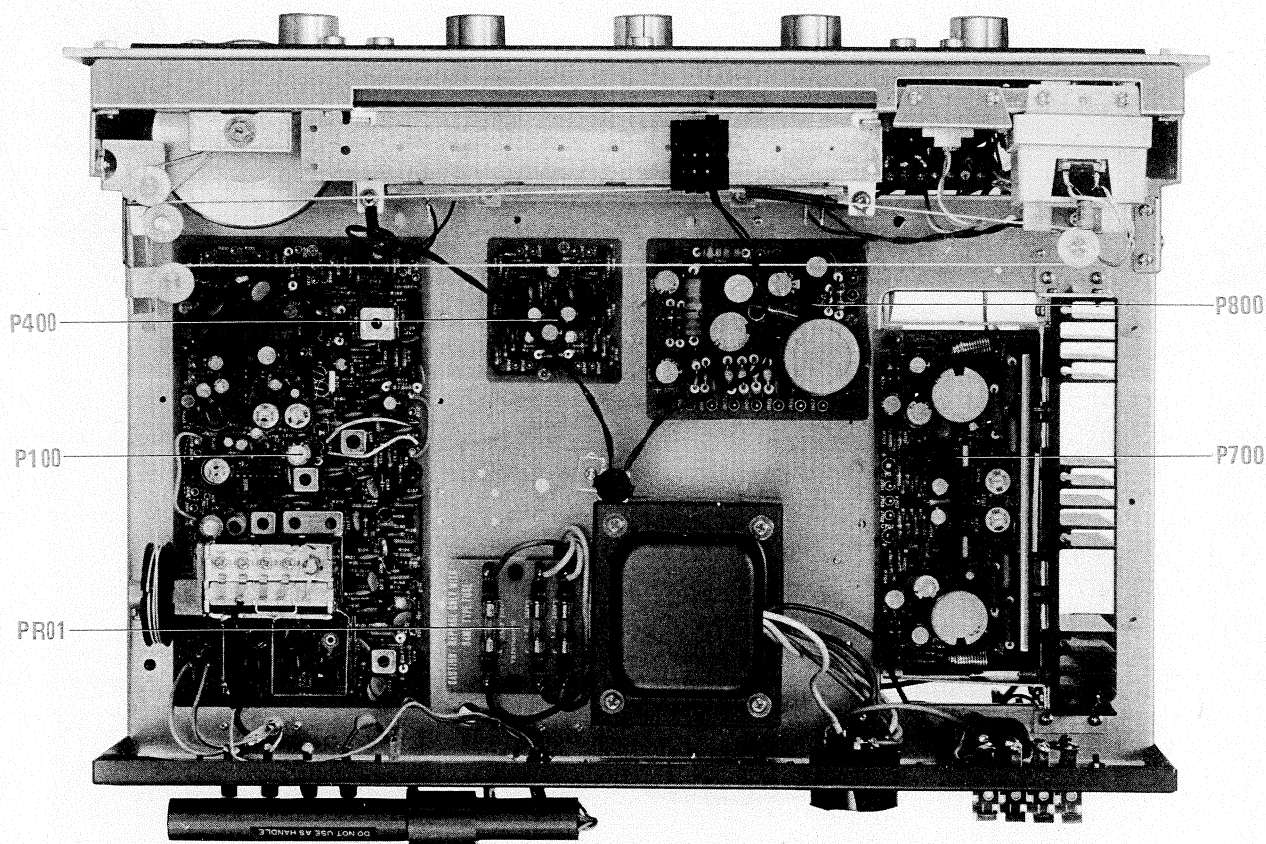


Figure 3. Main Chassis Component Locations (Top View)



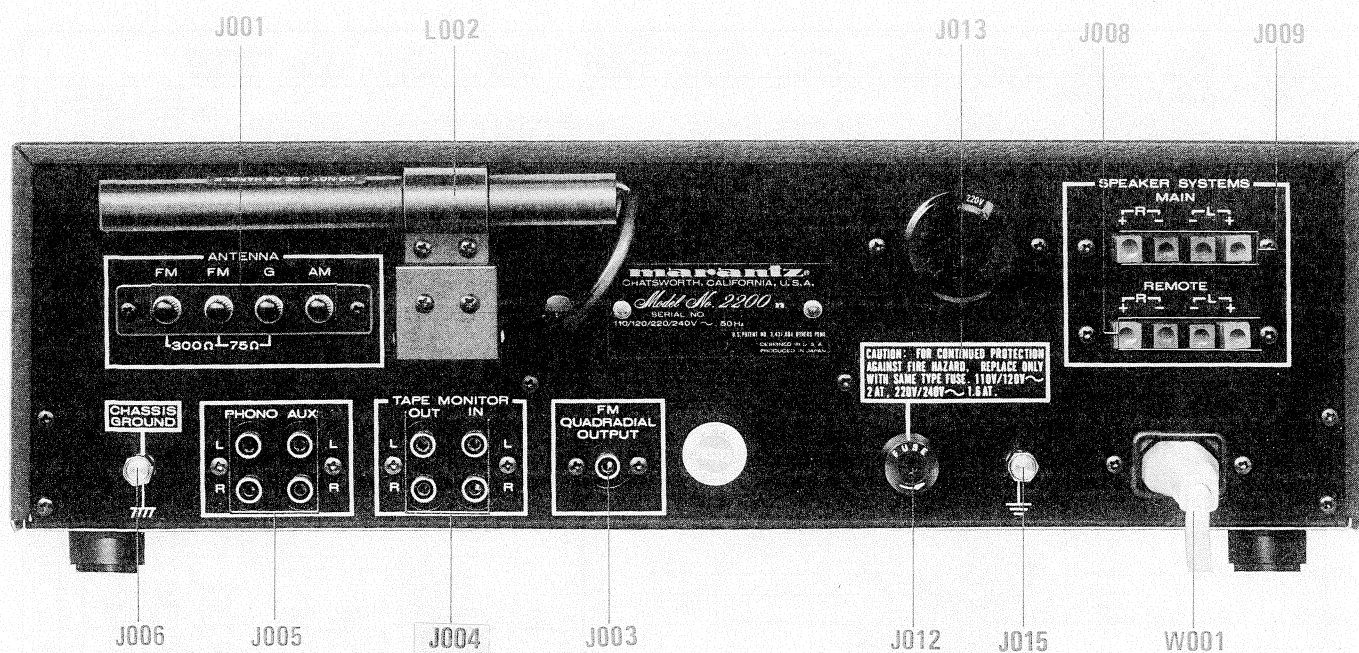


Figure 4. Rear Panel Adjustment and Facilities Locations

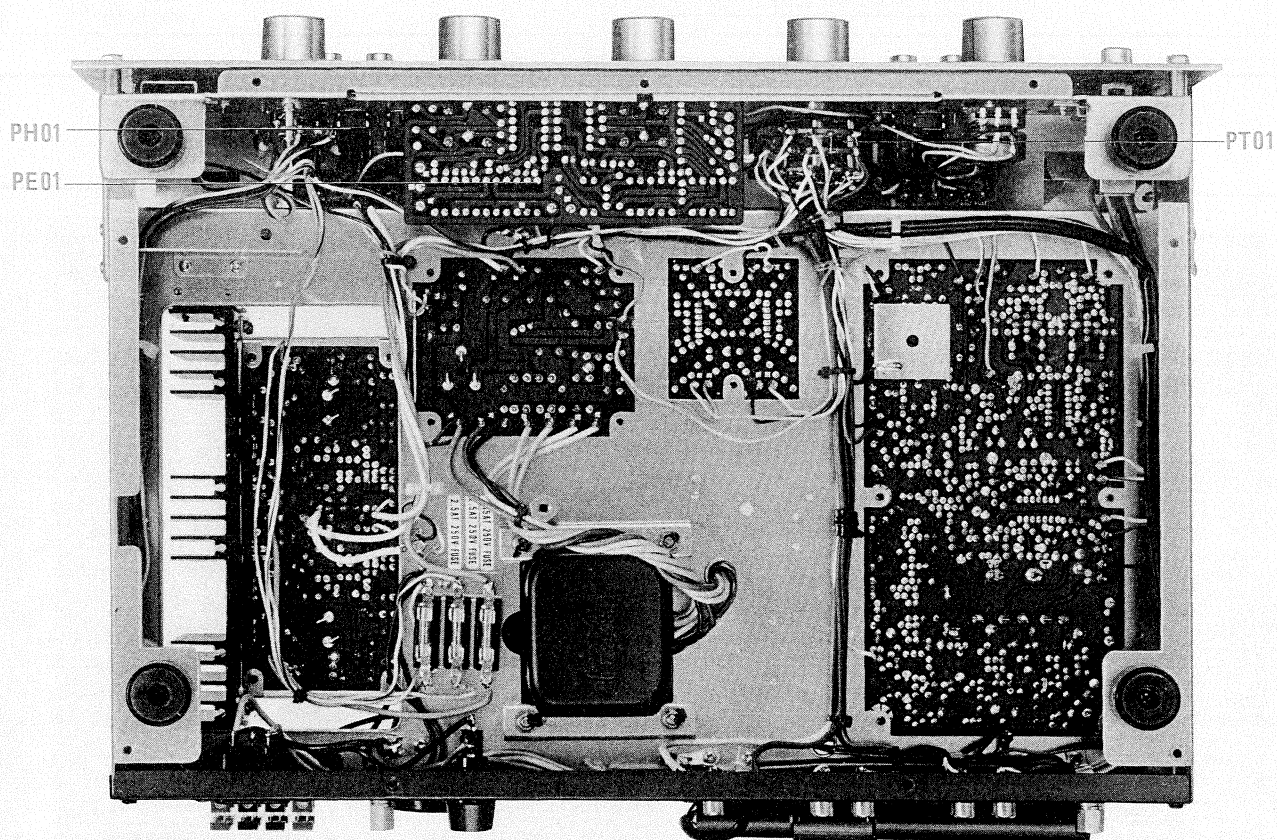


Figure 5. Main Chassis Component Locations (Bottom View)

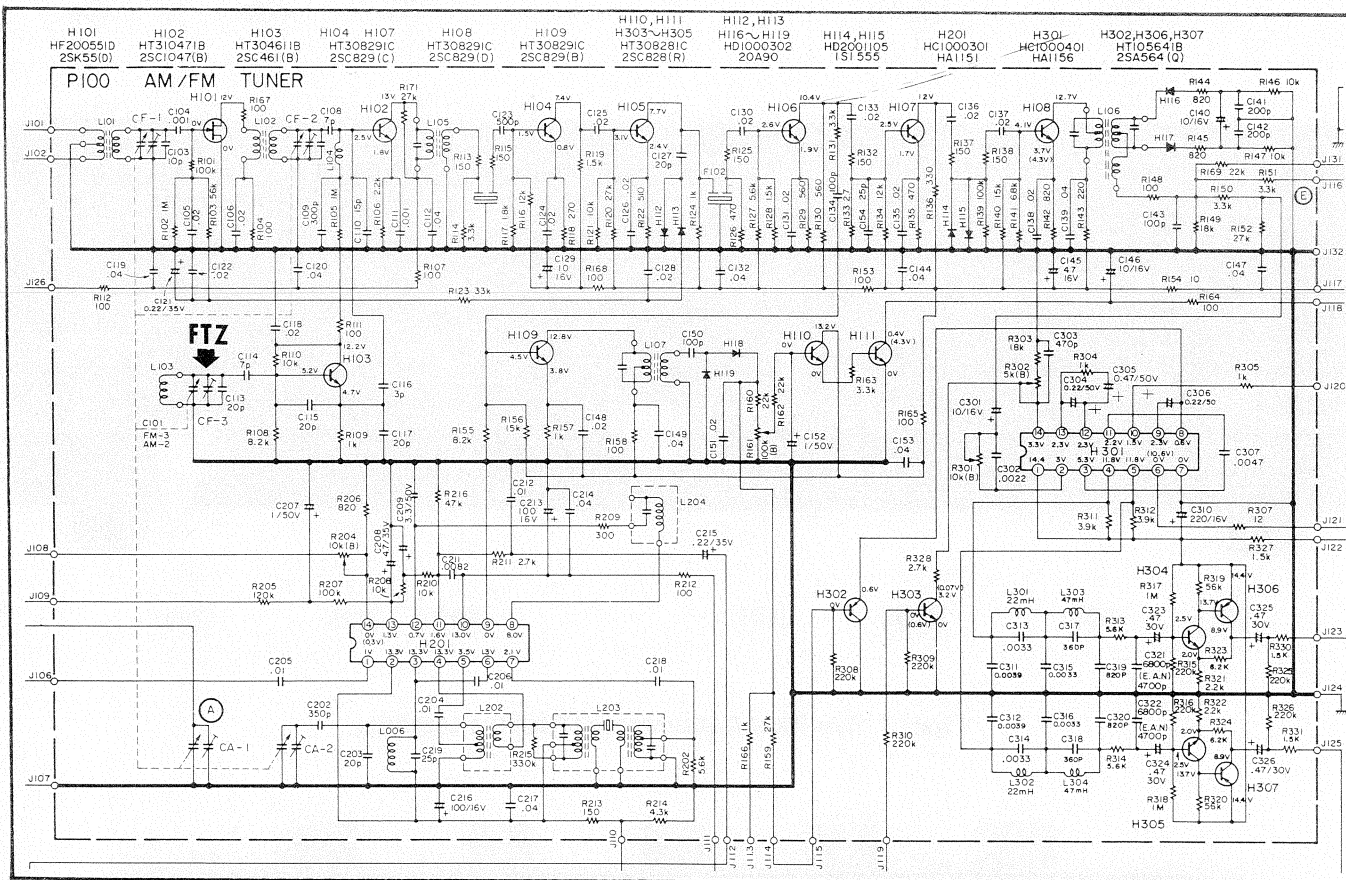


Figure 6. FM/AM Tuner Assembly (P100) Schematic Diagram

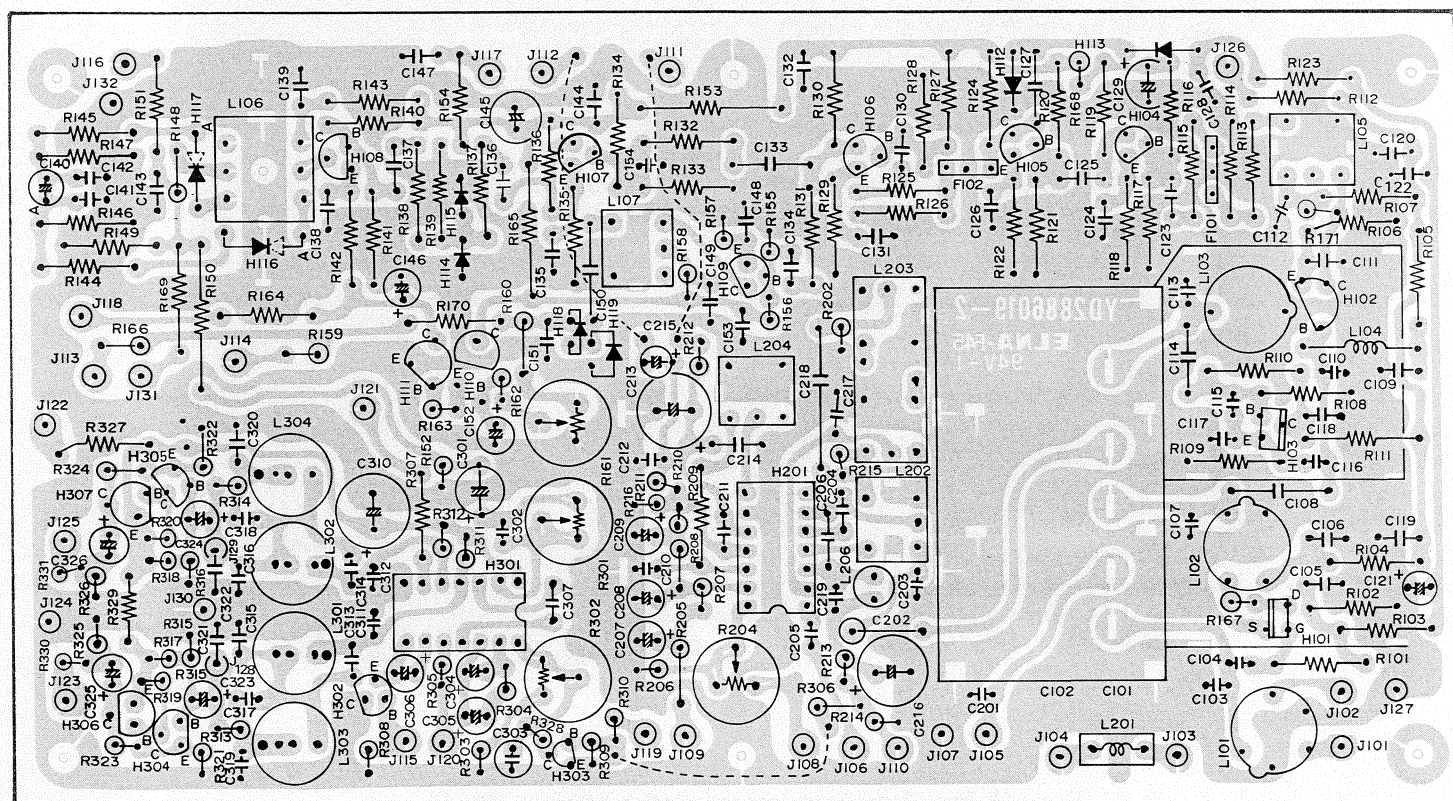


Figure 7. FM/AM Tuner Assembly (P100) Component Locations



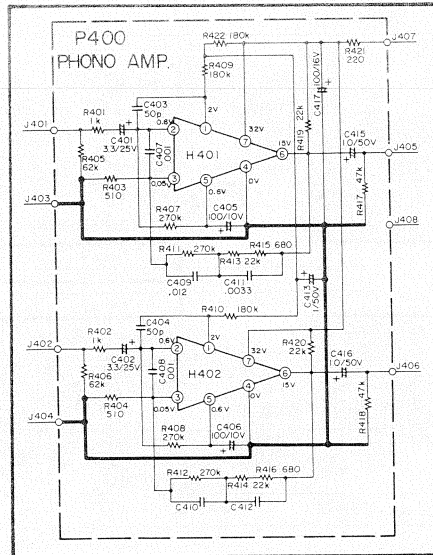


Figure 8. EQ Amplifier (P400) Schematic Diagram

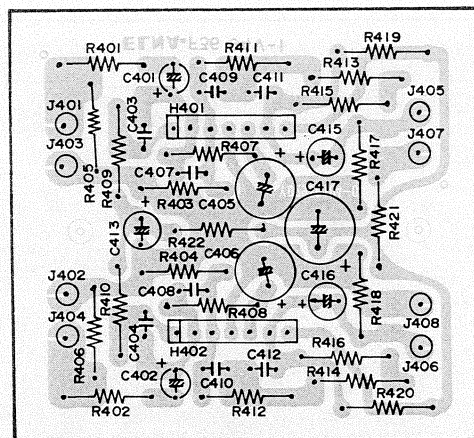


Figure 9. EQ Amplifier (P400) Component Locations

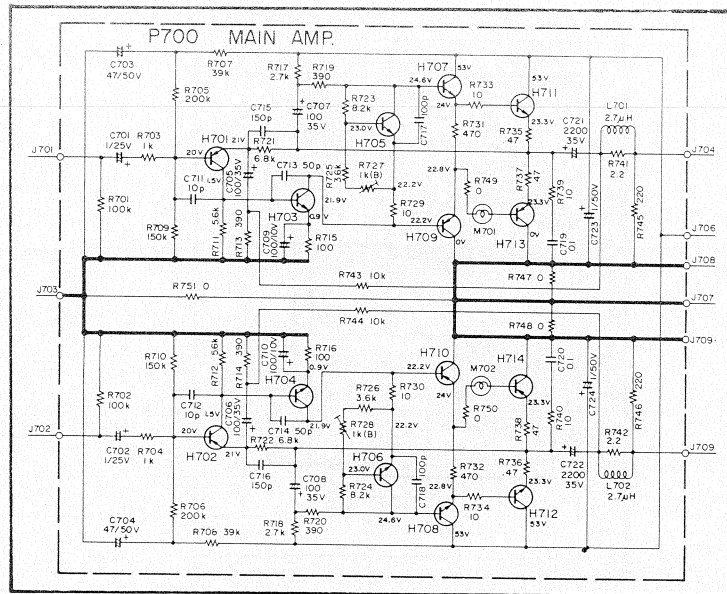


Figure 10. Main Amplifier (P700) Schematic Diagram

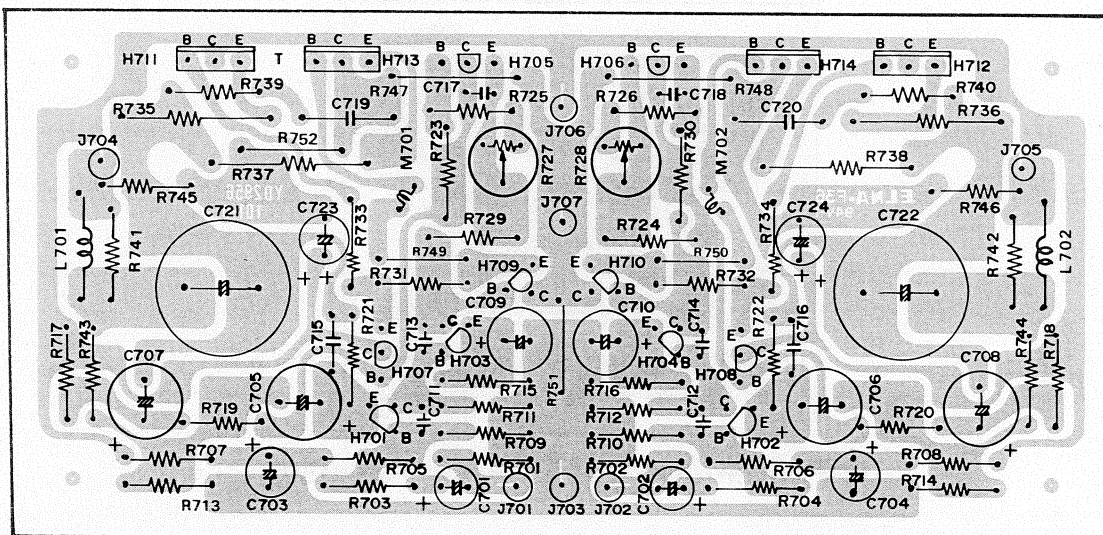


Figure 11. Main Amplifier (P700) Component Locations



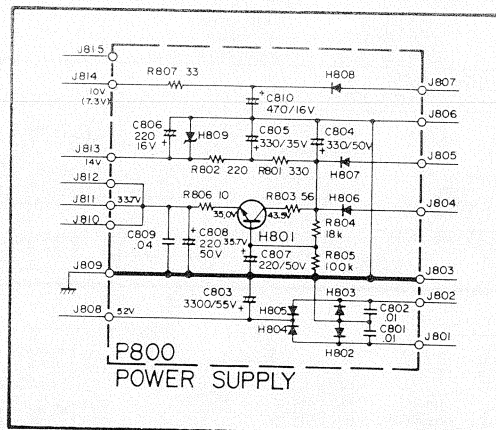


Figure 12. Power Supply Assembly (P800) Schematic Diagram

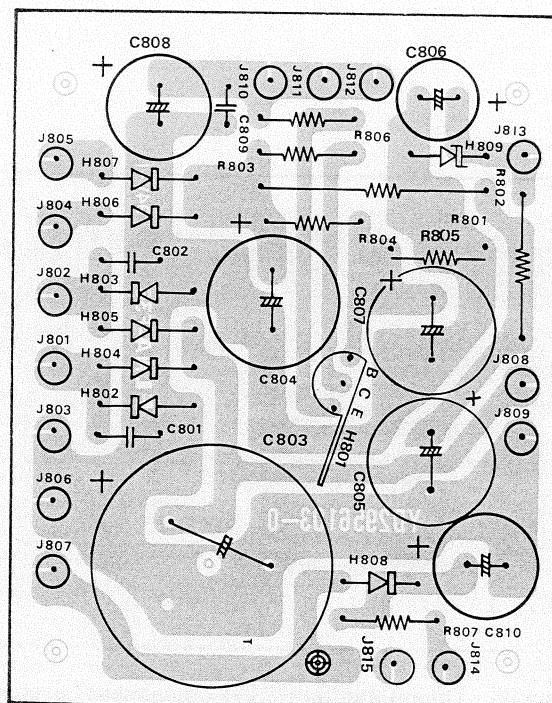


Figure 13. Power Supply Assembly (P800) Component Locations

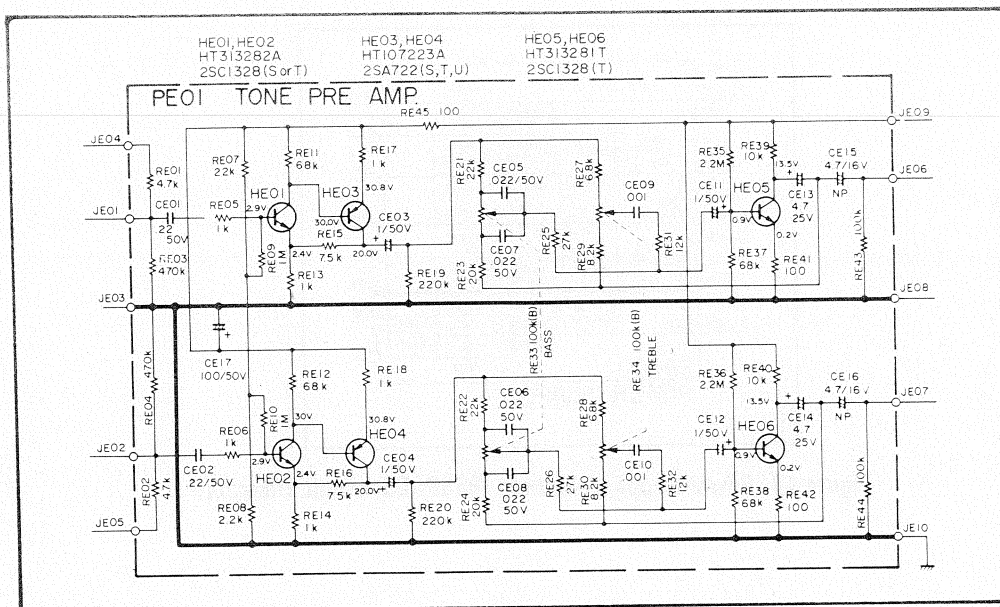


Figure 14. Tone Amplifier (PE01) Schematic Diagram

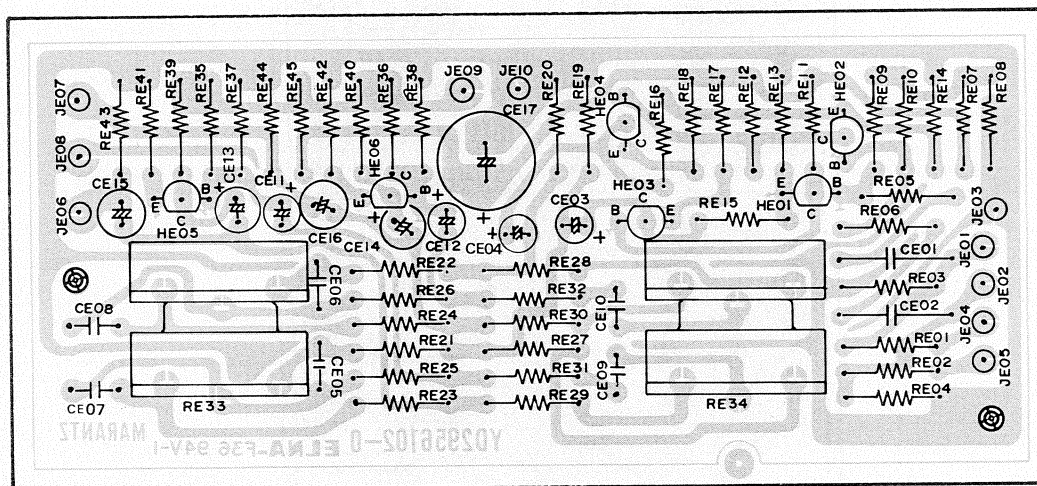


Figure 15. Tone Amplifier (PE01) Component Locations



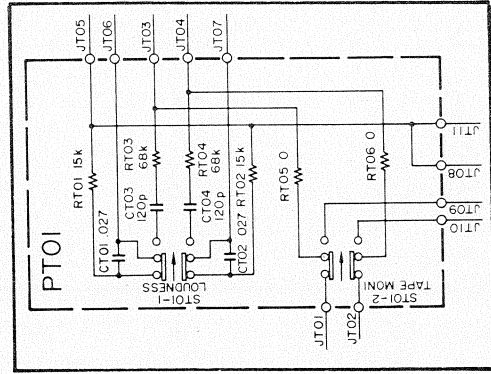


Figure 18. Loudness and Monitor Assembly (PT01) Schematic Diagram

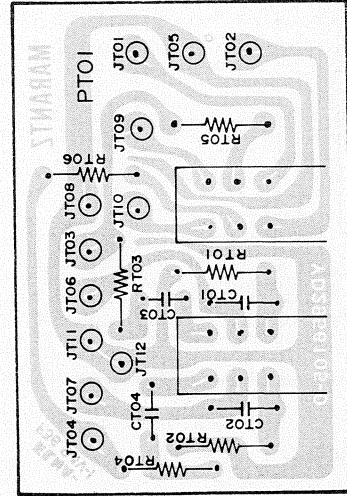


Figure 19. Loudness and Monitor Assembly (PT01) Component Locations

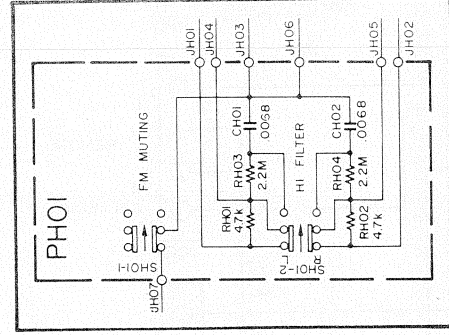


Figure 16. Muting Hi Filter Assembly (PH01) Schematic Diagram

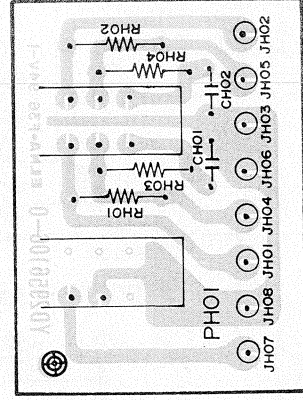


Figure 17. Muting Hi Filter Assembly (PH01) Component Locations

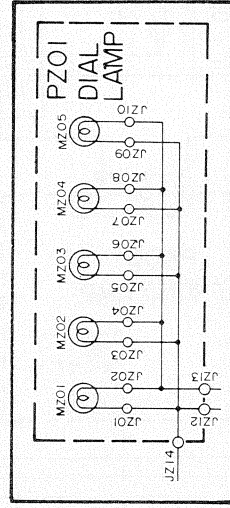


Figure 20. Dial Lamp Assembly (PZ01) Schematic Diagram

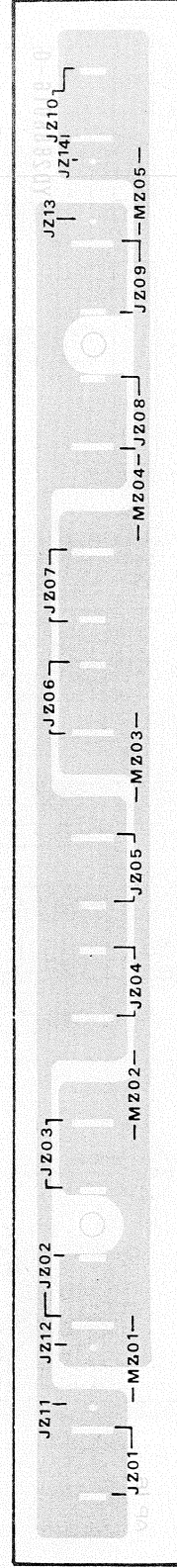


Figure 21. Dial Lamp Assembly (PZ01) Component Location









# PARTS LIST

N : For Scandinavia

REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION
A	1	2284063400	Front Panel Assembly (Gold)	011B	4	2886154030	Knob
001B	1	2284063010	Escutcheon (Gold)	0115	1	2915053010	Cover
0105	1	2853401016	Frame	012B	1	2904154040	Knob
0106	1	2284158010	Window	0122	1	2927055010	Collar
0110	1	2818259050	Bushing	013B	5	2959154010	Knob
0111	1	2915107010	Sheet	0207	4	51480406S9	F. Washer Screw, F4 x 6
A1	1	2284063410	Front Panel Assembly (Black)	0216	10	51100408S9	B.H.M. Screw, B4 x 6
001B	1	2284063110	Escutcheon (Black)	0221	4	2932057010	Leg
0105	1	2853401016	Frame	0222	4	51440410S9	L. Washer Screw L4 x 10
0106	1	2284158010	Window	0410	1	2284265010	Indicator
0110	1	2818259050	Bush	0411	2	51750306B9	OS Screw O3 x 6
0111	1	2915107010	Sheet	0412	1	2578861010	Label
B	1	2956257400	Lid Assembly, Upper	0413	1	2932861010	Label
0203	1	2956257110	Lid	0415	1	2506265060	Indicator
0204	1	2577118070	Spacer	0433	1	2882861020	Label
C	1	2956257410	Lid Assembly, Lower	0434	2	9512601020	Label
0213	1	2956257022	Lid	0506	1	2956160230	Bracket
0214	1	2888120010	Insulator	0510	6	51280306U0	B.H. Tapped Screw B3 x 6
D	1	2853273400	Flywheel Assembly	0531	4	51100308S9	B.H.M. Screw B3 x 8
003B	2	2577063022	Escutcheon	0532	4	53110303A9	Hexagon Nut
1105	1	2577273010	Flywheel	0603	6	51100308S9	B.H.M. Screw B3 x 8
1106	1	2853112010	Shaft	0604	6	53110303A9	Hexagon Nut
1110	1	53110603E9	Hexagon Nut	0607	2	51100308S9	B.H.M. Screw B3 x 8
1112	1	54020601E0	Flat Washer, P	0608	1	53110303E9	Hexagon Nut
E	1	2915103040	Pointer Assembly	0610	3	51100306S9	B.H.M. Screw B3 x 6
1406	1	2915103013	Pointer	0614	1	1455259030	Bush
1407	1	2818103022	Pointer	0618	2	51100308S9	B.H.M. Screw B3 x 8
1408	1	2915103020	Pointer	0621	1	54050400R0	T.L. Washer OR
1409	1	2915267030	Heatsink	0622	2	51100308S9	B.H.M. Screw B3 x 8
M002	1	1N10080300	Lamp	0623	2	54050300R0	T.L. Washer OR
F	1	2819159410	Drum Assembly	0624	2	53110303E9	Hexagon Nut
1908	1	2819159012	Drum	0705	1	2819271130	Holder
1910	1	71101569M0	Spring	0706	1	2578160520	Bracket
1913	1	51064019A9	Set Screw	0707	1	2578160050	Bracket
G	1	1202006400	Hook Assembly	0708	1	2578160060	Bracker
2004	1	1202258010	Hook	0709	2	5502030410	S.H. Rivet
2005	1	72080802A0	String	0711	2	51280312U0	B.H. Tapped Screw B3 x 10
0001	1	53110303A9	Hexagon Nut	0716	2	51280312U0	B.H. Tapped Screw B3 x 12
0001	1	62030039W0	Lug	0803	1	2915160500	Bracket
0002	1	53110303A9	Hexagon Nut	0804	1	2915160015	Bracket
0002	1	62030049W0	Lug	0805	2	2884101020	Support
0003	1	51570310S0	P. Tapped Screw, P3 x 10	0806	2	2884101010	Support
0004	1	53110303A9	Hexagon Nut	0809	1	2915160060	Bracket
0005	1	2887005110	Clamper	0810	2	51100306A9	B.H.M. Screw B3 x 6
0006	2	2963056010	Buffer	0816	1	2818160030	Bracket
005B	4	52017039J0	H. Head Bolt	0817	1	2818160040	Bracket
010B	1	2850154010	Knob	0818	4	51100405A9	B.H.M. Screw B4 x 5
				0819	10	51570306B0	P. Tapped Screw P3 x 6
				0821	4	51100306A9	B.H.M. Screw B3 x 6
				0822	2	51100306A9	B.H.M. Screw B3 x 6
				0825	1	2915160050	Bracket
				0827	2	51100306A9	B.H.M. Screw B3 x 6
				0828	2	51060306A9	P.H.M. Screw
				0832	2	51490308A9	L. Washer Screw L3 x 8
				0834	2	2886120020	Insulator
				0835	2	2916120010	Insulator
				0902	2	2927055020	Collar
				0908	1	2871274110	Reflector
				0910	1	2871271010	Holder
				0911	2	51570306B0	P. Tapped Screw P3 x 6

N : For Scandinavia

REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION		REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION	
0913	2	51480306A9	F. Washer Screw	F3 x 6	1630	4	54020401A0	Flat Washer, P	
0918	1	2871051020	Guide		1631	4	54040402A0	Spring Washer	
0920	2	51042608A0	F.H.M. Screw	F2.6 x 8	1632	4	53110403A9	Hexagon Nut	
0925	1	2854274010	Reflector		1636	2	54040302A0	Spring Washer	
0928	1	2956262500	Pulley		1703	6	51280308U0	B.H. Tapped Screw	B3 x 8
0929	1	2956160010	Bracket		1704	1	59030810P0	Washer	
0930	1	1370112030	Shaft		1707	3	51570306S0	P. Tapped Screw	P3 x 6
0931	1	2577262010	Pulley		1708	2	51570306S0	P. Tapped Screw	P3 x 6
1002	1	51480308A9	F. Washer Screw	F3 x 8	1709	2	51100306S9	B.H.M. Screw	B3 x 6
1004	1	2854271010	Holder		1711	1	2956160100	Bracket	
1006	1	51570305B0	P. Tapped Screw	P3 x 5	1712	1	51570306B0	P. Tapped Screw	P3 x 6
1009	2	51570306B0	P. Tapped Screw	P3 x 6	1713	3	51062606B0	P.H.M. Screw	P2.6 x 8
1010	2	54050300R0	T.L. Washer OR		1716	1	2927160050	Bracket	
1012	1	2886107010	Sheet		1717	1	51570306B0	P. Tapped Screw	P3 x 6
1015	1	2915160040	Bracket		1718	1	2908259010	Bush	
1016	2	51570306B0	P. Tapped Screw	P3 x 6	1721	1	2821109010	Shield	
1019	1	2912259010	Bushing		1722	1	3896109030	Shield	
1026	1	2956262520	Pulley		1723	1	2850109020	Shield	
1027	1	2956160090	Bracket		1726	1	2881109060	Shield	
1028	1	2577262010	Pulley		1727	2	2956005020	Clamper	
1029	1	1370112030	Shaft		1728	2	51570306B0	P. Tapped Screw	P3 x 6
1030	2	51100305A9	B.H.M. Screw	B3 x 5	1731	1	2956262510	Pulley	
1203	1	2853106500	Sustainer		1732	1	2956160060	Bracket	
1204	1	2818106012	Sustainer		1733	2	1370112030	Shaft	
1205	1	2853106010	Sustainer		1734	2	2577262010	Pulley	
1208	1	51640410D9	Set Screw, C.P.		1735	2	51570306B0	P. Tapped Screw	P3 x 6
1209	1	54040402N0	Spring Washer		1803	4	2886005060	Clamper	
1210	1	53110403E9	Hexagon Nut		1804	3	2886005050	Clamper	
1303	1	2577106020	Sustainer		1807	1	2910123010	Contacto	
1304	1	1415118010	Spacer		1808	1	51570306B0	P. Tapped Screw	P3 x 6
1305	2	51040306A9	F.H.M. Screw	F3 x 6	1809	1	54050300R0	T.L. Washer OR	
1310	1	2850112020	Shaft		2008	1	56332040G0	Eyelet	
1311	1	54040402N0	Spring Washer		2104	1	62030049W0	Lug	
1503	1	2284302010	Dial		2106	6	51570306B0	P. Tapped Screw	P3 x 6
1508	1	2284269020	Protector		2109	1	62040029W0	Lug	
1509	2	51570305B0	P. Tapped Screw	P3 x 5	2110	1	62040029W0	Lug	
1512	1	2284269010	Protector		2112	1	62030039W0	Lug	
1513	2	51570305B0	P. Tapped Screw	P3 x 5	2113	1	62030049W0	Lug	
1515	1	2284053010	Cover		2114	1	62030049W0	Lug	
1516	1	2284269030	Protector		2115	1	62030049W0	Lug	
1520	1	2819120050	Insulator		2117	2	62030049W0	Lug	
1603	1	2956105500	Chassis		2205	1	1382005030	Clamper	
1604	1	2956105010	Chassis		2206	2	51570306B0	P. Tapped Screw	P3 x 6
1605	1	2956101010	Support		2209	1	2871005010	Clamper	
1606	1	2854160030	Bracket		2210	1	51570306B0	P. Tapped Screw	P3 x 6
1607	2	51570306B0	P. Tapped Screw	P3 x 6	2303	1	2284851310	Instructions	
1610	1	2889259010	Bushing		2327	1	2818813010	Envelope	
1613	1	3899267010	Heatsink		2404	2	2221803010	Partitioner	
1614	1	2956160020	Bracket		2406	1	2284801010	Packing Case	
1615	1	2956160030	Bracket		2411	1	2918107150	Sheet	
1616	4	51380306P0	P.H. Tapped Screw	P3 x 6	2412	1	9014538350	Polyethylene Bag	
1617	4	51100312S9	B.H.M. Screw	B3 x 12	2414	1	9013025010	Polyethylene Bag	
1619	1	2956005010	Clamper		2418	1	9560000043	Hang Tag	
1620	2	2874118010	Spacer		2419	1	2731821010	Silicagel	
1621	2	51100312A9	B.H.M. Screw	B3 x 12	2420	1	2819056010	Buffer	
1623	2	2956160040	Bracket		2421	1	2956807010	Reinforcing	
1624	4	51380306P0	P.H. Tapped Screw	P3 x 6	2425	4	9526019030	Serial No Card	
1625	4	51570306B0	P. Tapped Screw	P3 x 6	2430	1	2882861010	Label	
1627	1	3917118010	Spacer		2432	1	ZA02000070	Ext. Antenna	
1629	2	2956160050	Bracket		7236	2	1382005030	Clamper	



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REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION
7936	1	2956160080	Bracket	C148	1	DK18203020	Ceramic Cap., 0.02μF ± 100%
7937	2	51570306B0	P. Tapped Screw P3 x 6	C149	1	DK18403020	Ceramic Cap., 0.04μF ± 100%
7938	1	9512601040	Label	C150	1	DD16101010	Ceramic Cap., 100pF ± 10%
8136	1	2886005020	Clamper	C151	1	DK18203020	Ceramic Cap., 0.02μF ± 100%
8536	1	9510911070	Label	C152	1	EA10505090	Electrolytic Cap., 1μF 50V
8637	1	2818851140	Instructions	C153	1	DK18403020	Ceramic Cap., 0.04μF ± 100%
8639	1	2818851120	Instructions	C154	1	DD15250020	Ceramic Cap., 25pF ± 5%
8640	1	9630000180	Guarantee Card	F101	1	FF11070050	Ceramic Filter
				F102	1	FF11070050	Ceramic Filter
				H101	1	HF200551D0	F.E.T. 2SK55 (D)
			<b>P100 TUNER BOARD</b>				
P100	1	YD28860190	P.W. Board	H102	1	HT31047180	Transistor 2SC1047 (B)
	1	ZZ29568190	P.W. Board Assembly	H103	1	HT304611B0	Transistor 2SC461 (B)
P107	1	3444118050	Spacer	H104	1	HT308291C0	Transistor 2SC829 (C)
P108	8	2933118020	Spacer	H105	1	HT310472B0	Transistor 2SC1047 (B)
C101	1	CA32500020	Variable Cap.,	H106	1	HT308291C0	Transistor 2SC829 (C)
C103	1	DD12100010	Ceramic Cap., 10pF ± 1pF	H107	1	HT308291C0	Transistor 2SC829 (C)
C104	1	DK17102010	Ceramic Cap., 1000pF ± 20%	H108	1	HT308291D0	Transistor 2SC829 (D)
C105	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	H109	1	HT308291B0	Transistor 2SC829 (B)
C106	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	H110	1	HT308281C0	Transistor 2SC828 (C)
C107	1	DD12100010	Ceramic Cap., 10pF ± 1pF	H111	1	HT308281C0	Transistor 2SC828 (C)
C108	1	DD12070030	Ceramic Cap., 7pF ± 1pF				
C109	1	DD15301020	Ceramic Cap., 300pF ± 5%	H112	1	HD10003020	Diode 20A90
				H113	1	HD10003020	Diode 20A90
C110	1	DD16150030	Ceramic Cap., 15pF ± 10pF	H114	1	HD20011050	Diode 1S1555
C111	1	DK17102010	Ceramic Cap., 1000pF ± 20%	H115	1	HD20011050	Diode 1S1555
C112	1	DK18403020	Ceramic Cap., 0.04μF	H116	1	HD10003020	Diode 20A90
C113	1	DD15200020	Ceramic Cap., 20pF ± 5%	H117	1	HD10003020	Diode 20A90
C114	1	DD12070030	Ceramic Cap., 7pF ± 1pF	H118	1	HD10003020	Diode 20A90
C115	1	DD15200010	Ceramic Cap., 20pF ± 5%	H119	1	HD10003020	Diode 20A90
C116	1	DD11030010	Ceramic Cap., 3pF ± 0.5pF	J101	1	YP10001140	Plug
C117	1	DD15200010	Ceramic Cap., 20pF ± 5%	J102	1	YP10001140	Plug
C118	1	DK18203020	Ceramic Cap., 0.02μF ± 100%				
C119	1	DK18403020	Ceramic Cap., 0.04μF ± 100%	J105	1	YP10001140	Plug
				J106	1	YP10001140	Plug
C120	1	DK18403020	Ceramic Cap., 0.04μF ± 100%	J107	1	YP10001140	Plug
C121	1	EV22403560	Electrolytic Cap., 0.22μF 35V	J108	1	YP10001140	Plug
C122	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	J109	1	YP10001140	Plug
C123	1	DD16501010	Ceramic Cap., 500pF ± 10%	J110	1	YP10001140	Plug
C124	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	J111	1	YP10001140	Plug
C125	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	J112	1	YP10001140	Plug
C126	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	J113	1	YP10001140	Plug
C127	1	DD16200010	Ceramic Cap., 20pF ± 10%	J114	1	YP10001140	Plug
C128	1	DK18203020	Ceramic Cap., 0.02μF ± 100%				
C129	1	EA10601690	Electrolytic Cap., 10μF 16V	J115	1	YP10001140	Plug
				J116	1	YP10001140	Plug
C130	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	J117	1	YP10001140	Plug
C131	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	J118	1	YP10001140	Plug
C132	1	DK18403020	Ceramic Cap., 0.04μF ± 100%	J119	1	YP10001140	Plug
C133	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	J120	1	YP10001140	Plug
C134	1	DD16101010	Ceramic Cap., 100pF ± 10%	J121	1	YP10001140	Plug
C135	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	J122	1	YP10001140	Plug
C136	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	J123	1	YP10001140	Plug
C137	1	DK18203020	Ceramic Cap., 0.02μF ± 100%	J124	1	YP10001140	Plug
C138	1	DK18203020	Ceramic Cap., 0.02μF ± 100%				
C139	1	DK18403020	Ceramic Cap., 0.04μF ± 100%	J125	1	YP10001140	Plug
				J126	1	YP10001140	Plug
C140	1	EA10601690	Electrolytic Cap., 10μF 16V	J131	1	YP10001140	Plug
C141	1	DD16201010	Ceramic Cap., 200pF ± 10%	J132	1	YP10001140	Plug
C142	1	DD16201010	Ceramic Cap., 200pF ± 10%	L101	1	LA12026120	Ant Coil
C143	1	DD16101010	Ceramic Cap., 100pF ± 10%	L102	1	LA12026100	Ant Coil
C144	1	DK18403020	Ceramic Cap., 0.04μF ± 100%	L103	1	LO12036010	Osc Coil
C145	1	EA47601690	Electrolytic Cap., 47μF 16V	L104	1	LC17510010	Choke Coil
C146	1	EA10601690	Electrolytic Cap., 10μF 16V	L105	1	LI10016010	I.F.T.
C147	1	DK18403020	Ceramic Cap., 0.04μF ± 100%	L106	1	LI14016230	I.F.T.

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REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION
7936	1	2956160080	Bracket	C148	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$
7937	2	51570306B0	P. Tapped Screw P3 x 6	C149	1	DK18403020	Ceramic Cap., 0.04 $\mu$ F $\pm 100\%$
7938	1	9512601040	Label	C150	1	DD16101010	Ceramic Cap., 100pF $\pm 10\%$
8136	1	2886005020	Clamper	C151	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$
8536	1	9510911070	Label	C152	1	EA10505090	Electrolytic Cap., 1 $\mu$ F 50V
8637	1	2818851140	Instructions	C153	1	DK18403020	Ceramic Cap., 0.04 $\mu$ F $\pm 100\%$
8639	1	2818851120	Instructions	C154	1	DD15250020	Ceramic Cap., 25pF $\pm 5\%$
8640	1	9630000180	Guarantee Card	F101	1	FF11070050	Ceramic Filter
				F102	1	FF11070050	Ceramic Filter
				H101	1	HF200551D0	F.E.T. 2SK55 (D)
P100	1	YD28860190	P.W. Board				
	1	ZZ29568190	P.W. Board Assembly	H102	1	HT31047180	Transistor 2SC1047 (B)
P107	1	3444118050	Spacer	H103	1	HT304611B0	Transistor 2SC461 (B)
P108	8	2933118020	Spacer	H104	1	HT308291C0	Transistor 2SC829 (C)
C101	1	CA32500020	Variable Cap.,	H105	1	HT310472B0	Transistor 2SC1047 (B)
C103	1	DD12100010	Ceramic Cap., 10pF $\pm 1pF$	H106	1	HT308291C0	Transistor 2SC829 (C)
C104	1	DK17102010	Ceramic Cap., 1000pF $\pm 20\%$	H107	1	HT308291C0	Transistor 2SC829 (C)
C105	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	H108	1	HT308291D0	Transistor 2SC829 (D)
C106	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	H109	1	HT308291B0	Transistor 2SC829 (B)
C107	1	DD12100010	Ceramic Cap., 10pF $\pm 1pF$	H110	1	HT308281C0	Transistor 2SC828 (C)
C108	1	DD12070030	Ceramic Cap., 7pF $\pm 1pF$	H111	1	HT308281C0	Transistor 2SC828 (C)
C109	1	DD15301020	Ceramic Cap., 300pF $\pm 5\%$				
C110	1	DD16150030	Ceramic Cap., 15pF $\pm 10pF$	H112	1	HD10003020	Diode 20A90
C111	1	DK17102010	Ceramic Cap., 1000pF $\pm 20\%$	H113	1	HD10003020	Diode 20A90
C112	1	DK18403020	Ceramic Cap., 0.04 $\mu$ F	H114	1	HD20011050	Diode 1S1555
C113	1	DD15200020	Ceramic Cap., 20pF $\pm 5\%$	H115	1	HD20011050	Diode 1S1555
C114	1	DD12070030	Ceramic Cap., 7pF $\pm 1pF$	H116	1	HD10003020	Diode 20A90
C115	1	DD15200010	Ceramic Cap., 20pF $\pm 5\%$	H117	1	HD10003020	Diode 20A90
C116	1	DD11030010	Ceramic Cap., 3pF $\pm 0.5pF$	H118	1	HD10003020	Diode 20A90
C117	1	DD15200010	Ceramic Cap., 20pF $\pm 5\%$	H119	1	HD10003020	Diode 20A90
C118	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J101	1	YP10001140	Plug
C119	1	DK18403020	Ceramic Cap., 0.04 $\mu$ F $\pm 100\%$	J102	1	YP10001140	Plug
C120	1	DK18403020	Ceramic Cap., 0.04 $\mu$ F $\pm 100\%$	J105	1	YP10001140	Plug
C121	1	EV22403560	Electrolytic Cap., 0.22 $\mu$ F 35V	J106	1	YP10001140	Plug
C122	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J107	1	YP10001140	Plug
C123	1	DD16501010	Ceramic Cap., 500pF $\pm 10\%$	J108	1	YP10001140	Plug
C124	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J109	1	YP10001140	Plug
C125	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J110	1	YP10001140	Plug
C126	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J111	1	YP10001140	Plug
C127	1	DD16200010	Ceramic Cap., 20pF $\pm 10\%$	J112	1	YP10001140	Plug
C128	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J113	1	YP10001140	Plug
C129	1	EA10601690	Electrolytic Cap., 10 $\mu$ F 16V	J114	1	YP10001140	Plug
C130	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J115	1	YP10001140	Plug
C131	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J116	1	YP10001140	Plug
C132	1	DK18403020	Ceramic Cap., 0.04 $\mu$ F $\pm 100\%$	J117	1	YP10001140	Plug
C133	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J118	1	YP10001140	Plug
C134	1	DD16101010	Ceramic Cap., 100pF $\pm 10\%$	J119	1	YP10001140	Plug
C135	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J120	1	YP10001140	Plug
C136	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J121	1	YP10001140	Plug
C137	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J122	1	YP10001140	Plug
C138	1	DK18203020	Ceramic Cap., 0.02 $\mu$ F $\pm 100\%$	J123	1	YP10001140	Plug
C139	1	DK18403020	Ceramic Cap., 0.04 $\mu$ F $\pm 100\%$	J124	1	YP10001140	Plug
C140	1	EA10601690	Electrolytic Cap., 10 $\mu$ F 16V	J125	1	YP10001140	Plug
C141	1	DD16201010	Ceramic Cap., 200pF $\pm 10\%$	J126	1	YP10001140	Plug
C142	1	DD16201010	Ceramic Cap., 200pF $\pm 10\%$	J131	1	YP10001140	Plug
C143	1	DD16101010	Ceramic Cap., 100pF $\pm 10\%$	J132	1	YP10001140	Plug
C144	1	DK18403020	Ceramic Cap., 0.04 $\mu$ F $\pm 100\%$	L101	1	LA12026120	Ant Coil
C145	1	EA47601690	Electrolytic Cap., 47 $\mu$ F 16V	L102	1	LA12026100	Ant Coil
C146	1	EA10601690	Electrolytic Cap., 10 $\mu$ F 16V	L103	1	LO12036010	Osc Coil
C147	1	DK18403020	Ceramic Cap., 0.04 $\mu$ F $\pm 100\%$	L104	1	LC17510010	Choke Coil
				L105	1	LI10016010	I.F.T.
				L106	1	LI14016230	I.F.T.

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REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION				REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION			
L107	1	LI10156020	I.F.T.				R160	1	RT05223140	Resistor	22K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R101	1	RT05104140	Resistor	100K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R161	1	RA01040180	Trimming Resistor	100K $\Omega$	(B)	
R102	1	RT05105140	Resistor	1M $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R162	1	RT05223140	Resistor	22K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R103	1	RT05563140	Resistor	56K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R163	1	RT05332140	Resistor	3.3K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R104	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R164	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R105	1	RT05105140	Resistor	1M $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R165	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R106	1	RT05222140	Resistor	2.2K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R166	1	RT05102140	Resistor	1K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R107	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R167	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R108	1	RT05822140	Resistor	8.2K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R168	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R109	1	RT05102140	Resistor	1K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R169	1	RT05223140	Resistor	22K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R110	1	RT05103140	Resistor	10K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R170	1	RC00000120	Resistor	0 $\Omega$		
R111	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R171	1	RT05273140	Resistor	27K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R112	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R172	1	GD05103140	Resistor	10K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R113	1	RT05151140	Resistor	150 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C202	1	DF65351010	Film Cap.,	350pF	$\pm 5\%$	
R114	1	RT05332140	Resistor	3.3K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C203	1	DD15200010	Ceramic Cap.,	20pF	$\pm 5\%$	
R115	1	RT05151140	Resistor	150 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C204	1	DF17103010	Film Cap.,	0.01 $\mu F$	$\pm 20\%$	
R116	1	RT05123140	Resistor	12K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C205	1	DF17103010	Film Cap.,	0.01 $\mu F$	$\pm 20\%$	
R117	1	RT05182140	Resistor	1.8K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C206	1	DF17103010	Film Cap.,	0.01 $\mu F$	$\pm 20\%$	
R118	1	RT05271140	Resistor	270 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C207	1	EA10505090	Elect Cap.,	1 $\mu F$	50V	
R119	1	RT05152140	Resistor	1.5K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C208	1	EA47503590	Elect Cap.,	4.7 $\mu F$	35V	
R120	1	RT05273140	Resistor	27K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C209	1	EA33505090	Elect Cap.,	3.3 $\mu F$	50V	
R121	1	RT05103140	Resistor	10K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C210	1	DK17102010	Ceramic Cap.,	1000pF	$\pm 20\%$	
R122	1	RT05511140	Resistor	510 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C211	1	DF16822010	Film Cap.,	8200pF	$\pm 10\%$	
R123	1	RT05332140	Resistor	33K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C212	1	DF17103010	Film Cap.,	0.01 $\mu F$	$\pm 20\%$	
R124	1	RT05102140	Resistor	1K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C213	1	EA10701690	Elect Cap.,	100 $\mu F$	16V	
R125	1	RT05151140	Resistor	150 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C214	1	DK18403020	Ceramic Cap.,	0.04 $\mu F$		
R126	1	RT05471140	Resistor	470 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C215	1	EV22403560	Elect Cap.,	0.22 $\mu F$	35V	
R127	1	RT05562140	Resistor	5.6K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C216	1	EA10701690	Elect Cap.,	100 $\mu F$	16V	
R128	1	RT05152140	Resistor	1.5K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C217	1	DK18403020	Ceramic Cap.,	0.04 $\mu F$		
R129	1	RT05561140	Resistor	560 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C218	1	DK17103010	Ceramic Cap.,	0.01 $\mu F$	$\pm 20\%$	
R130	1	RT05561140	Resistor	560 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C219	1	DD15250020	Ceramic Cap.,	25pF	$\pm 5\%$	
R131	1	RT05152140	Resistor	1.5K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	H201	1	HC10003010	IC	HA1151		
R132	1	RT05151140	Resistor	150 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	L202	1	LO10010490	Osc Coil			
R133	1	RT05272140	Resistor	2.7K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	L203	1	LI10280030	I.F.T.			
R134	1	RT05123140	Resistor	12K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	L204	1	LI10010640	I.F.T.			
R135	1	RT05471140	Resistor	470 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	L206	1	LC21050010	Choke Coil			
R136	1	RT05331140	Resistor	330 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R202	1	RT05562140	Resistor	5.6K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R137	1	RT05151140	Resistor	150 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R204	1	RA01030250	Trimming Resistor	10K $\Omega$	(B)	
R138	1	RT05151140	Resistor	150 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R205	1	RT05124140	Resistor	120K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R139	1	RT05104140	Resistor	100K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R206	1	RT05821140	Resistor	820 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R140	1	RT05153140	Resistor	15K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R207	1	RT05104140	Resistor	100K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R141	1	RT05682140	Resistor	6.8K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R208	1	RT05103140	Resistor	10K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R142	1	RT05821140	Resistor	820 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R209	1	RT05301140	Resistor	300 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R143	1	RT05221140	Resistor	220 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R210	1	RT05103140	Resistor	10K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R144	1	RT05821140	Resistor	820 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R211	1	RT05272140	Resistor	2.7K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R145	1	RT05821140	Resistor	820 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R212	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R146	1	RT05103140	Resistor	10K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R213	1	RT05151140	Resistor	150 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R147	1	RT05103140	Resistor	10K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R214	1	RT05432140	Resistor	4.3K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R148	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R215	1	RT05334140	Resistor	330K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R149	1	RT05183140	Resistor	18K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	R216	1	RT05473140	Resistor	47K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$
R150	1	RT05332140	Resistor	3.3K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C301	1	EA10601690	Electrolytic Cap.,	10 $\mu F$	16V	
R151	1	RT05332140	Resistor	3.3K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C302	1	DF16222010	Film Cap.,	0.0022 $\mu F$	$\pm 10\%$	
R152	1	RT05273140	Resistor	27K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C303	1	DF55471010	Film Cap.,	470pF	$\pm 5\%$	
R153	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C304	1	EQ22405010	Electrolytic Cap.,	0.22 $\mu F$	50V	
R154	1	RT05100140	Resistor	10 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C305	1	EQ47405010	Electrolytic Cap.,	0.47 $\mu F$	50V	
R155	1	RT05822140	Resistor	8.2K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C306	1	EQ22405010	Electrolytic Cap.,	0.22 $\mu F$		
R156	1	RT05153140	Resistor	15K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C307	1	DF17473010	Film Cap.,	0.047 $\mu F$		
R157	1	RT05102140	Resistor	1K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C310	1	EA22701690	Electrolytic Cap.,	220 $\Omega$		
R158	1	RT05101140	Resistor	100 $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C311	1	DF16392010	Film Cap.,	0.0039 $\mu F$	$\pm 10\%$	
R159	1	RT05273140	Resistor	27K $\Omega$	$\pm 5\%$	$\frac{1}{4}W$	C312	1	DF16392010	Film Cap.,	0.0039 $\mu F$	$\pm 10\%$	

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REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION				REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION			
C313	1	DF15332010	Film Cap., 0.0033μF	±5%			P400	1	YD29561040	P400 EQL. AMP BOARD			
C314	1	DF15332010	Film Cap., 0.0033μF	±5%				1	ZZ29561040	P.W. Board			
C315	1	DF16332010	Film Cap., 0.0033μF	±10%						P.W. Board Assembly			
C316	1	DF16332010	Film Cap., 0.0033μF	±10%			P408	1	2933118020	Spacer			
C317	1	DD15361010	Ceramic Cap., 360pF	±5%			R401	1	RT05102140	Resistor	1KΩ	±5%	¼W
C318	1	DD15361010	Ceramic Cap., 360pF	±5%			R402	1	RT05102140	Resistor	1KΩ	±5%	¼W
C319	1	DF55821010	Film Cap., 820pF	±5%			R403	1	RT05511140	Resistor	510Ω	±5%	¼W
C320	1	DF55821010	Film Cap., 820pF	±5%			R404	1	RT05511140	Resistor	510Ω	±5%	¼W
C321	1	DF15472010	Film Cap., 4700pF	±5%			R405	1	RT05623140	Resistor	62KΩ	±5%	¼W
C322	1	DF15472010	Film Cap., 4700pF	±5%			R406	1	RT05623140	Resistor	62KΩ	±5%	¼W
C323	1	EV47403560	Electrolytic Cap., 0.047μF	35V			R407	1	RN05274140	Resistor	270KΩ	±5%	¼W
C324	1	EV47403560	Electrolytic Cap., 0.047μF	35V			R408	1	RN05274140	Resistor	270KΩ	±5%	¼W
C325	1	EV47403560	Electrolytic Cap., 0.047μF	35V			R409	1	RN05184140	Resistor	180KΩ	±5%	¼W
C326	1	EV47403560	Electrolytic Cap., 0.47μF	35V									
H301	1	HC10009060	IC				R410	1	RN05184140	Resistor	180KΩ	±5%	¼W
H302	1	HT105641B0	Transistor 2SA564 (B)				R411	1	RN05274140	Resistor	270KΩ	±5%	¼W
H303	1	HT308281C0	Transistor 2SC828 (C)				R412	1	RN05274140	Resistor	270KΩ	±5%	¼W
H304	1	HT308281C0	Transistor 2SC828 (C)				R413	1	RT05223140	Resistor	22KΩ	±5%	¼W
H305	1	HT308281C0	Transistor 2SC828 (C)				R414	1	RT05223140	Resistor	22KΩ	±5%	¼W
H306	1	HT105641B0	Transistor 2SA564 (B)				R415	1	RT05681140	Resistor	680Ω	±5%	¼W
							R416	1	RT05681140	Resistor	680Ω	±5%	¼W
H307	1	HT105641B0	Transistor 2SA564 (B)				R417	1	RT05473140	Resistor	47KΩ	±5%	¼W
L301	1	LC22260040	Choke Coil				R418	1	RT05473140	Resistor	47KΩ	±5%	¼W
L302	1	LC22260040	Choke Coil				R419	1	RT05223140	Resistor	22KΩ	±5%	¼W
L303	1	LC24760010	Choke Coil										
L304	1	LC24760010	Choke Coil				R420	1	RT05223140	Resistor	22KΩ	±5%	¼W
R301	1	RA01030250	Trimming Resistor (B)				R421	1	RT05221140	Resistor	220Ω	±5%	¼W
R302	1	RA04720050	Trimming Resistor				R422	1	RT05184140	Resistor	180KΩ	±5%	¼W
R303	1	RT05163140	Resistor 16KΩ	±5%	¼W		C401	1	EV33502560	Electrolytic Cap.,	3.3μF	25V	
R304	1	RT05102140	Resistor 1KΩ	±5%	¼W		C402	1	EV33502560	Electrolytic Cap.,	3.3μF	25V	
R305	1	RT05102140	Resistor 1KΩ	±5%	¼W		C403	1	DD16101010	Ceramic Cap., 100pF	±10%		
							C404	1	DD16101010	Ceramic Cap., 100pF	±10%		
R307	1	RT05120140	Resistor 12KΩ	±5%	¼W		C405	1	EA10701090	Electrolytic Cap.,	100μF	10V	
R308	1	RT05224140	Resistor 220KΩ	±5%	¼W		C406	1	EA10701090	Electrolytic Cap.,	100μF	10V	
R309	1	RT05224140	Resistor 220KΩ	±5%	¼W		C407	1	DK17102010	Ceramic Cap., 0.001μF	±20%		
R310	1	RT05224140	Resistor 220KΩ	±5%	¼W								
R311	1	RT05392140	Resistor 3.9KΩ	±5%	¼W		C408	1	DK17102010	Ceramic Cap., 0.001μF	±20%		
R312	1	RT05392140	Resistor 3.9KΩ	±5%	¼W		C409	1	DF15123010	Film Cap., 0.012μF	±5%		
R313	1	RT05562140	Resistor 5.6KΩ	±5%	¼W		C410	1	DF15123010	Film Cap., 0.012μF	±5%		
R314	1	RT05562140	Resistor 5.6KΩ	±5%	¼W		C411	1	DF15332010	Film Cap., 0.003μF	±5%		
R315	1	RT05224140	Resistor 220KΩ	±5%	¼W		C412	1	DF15332010	Film Cap., 0.003μF	±5%		
R316	1	RT05224140	Resistor 220KΩ	±5%	¼W		C413	1	EE10505040	Electrolytic Cap.,	1μF	50V	
							C415	1	EE10505040	Electrolytic Cap.,	1μF	50V	
R317	1	RT05105140	Resistor 1MΩ	±5%	¼W		C416	1	EE10505040	Electrolytic Cap.,	1μF	50V	
R318	1	RT05105140	Resistor 1MΩ	±5%	¼W		C417	1	EA10703590	Electrolytic Cap.,	100μF	35V	
R319	1	RT05563140	Resistor 56KΩ	±5%	¼W		H401	1	HC10011050	IC	TA7129P		
R320	1	RT05563140	Resistor 56KΩ	±5%	¼W								
R321	1	RT05222140	Resistor 2.2KΩ	±5%	¼W		H402	1	HC10011050	IC	TA7129P		
R322	1	RT05222140	Resistor 2.2KΩ	±5%	¼W		J401	1	YP10001130	Plug			
R323	1	RT05622140	Resistor 6.2KΩ	±5%	¼W		J402	1	YP10001130	Plug			
R324	1	RT05622140	Resistor 6.2KΩ	±5%	¼W		J404						
R325	1	RT05224140	Resistor 220KΩ	±5%	¼W			5	YP10001130	Plug			
R326	1	RT05224140	Resistor 220KΩ	±5%	¼W		J408						
R327	1	RT05152140	Resistor 1.5KΩ	±5%	¼W								
R328	1	RT05272140	Resistor 2.7KΩ	±5%	¼W		P700	1	YD29561010	P700 MAIN AMP. BOARD			
R329	1	RC00000120	Resistor 0Ω	±5%	¼W			1	ZZ29561010	P.W. Board			
R330	1	RT05152140	Resistor 1.5KΩ	±5%	¼W					P.W. Board Assembly			
R331	1	RT05152140	Resistor 1.5KΩ	±5%	¼W		P708	16	2933118020	Spacer			
							C701	1	EV10502560	Electrolytic Cap.,	1μF	25V	
							C702	1	EV10502560	Electrolytic Cap.,	1μF	25V	
							C703	1	EA47605090	Electrolytic Cap.,	47μF	50V	
							C704	1	EA47605090	Electrolytic Cap.,	47μF	50V	
							C705	1	EE10703550	Electrolytic Cap.,	100μF	35V	

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REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION				REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION			
C706	1	EE10703550	Electrolytic Cap.,	100μF	35V		R725	1	RT05362140	Resistor	3.6KΩ ±5%	¼W	
C707	1	EA10703590	Electrolytic Cap.,	100μF	35V		R726	1	RT05362140	Resistor	3.6KΩ ±5%	¼W	
C708	1	EA10703590	Electrolytic Cap.,	100μF	35V		R727	1	RA01020210	Trimming Resistor,	1KΩ	(B)	
C709	1	EA10701090	Electrolytic Cap.,	100μF	10V		R728	1	RA01020210	Trimming Resistor,	1KΩ	(B)	
C710	1	EA10701090	Electrolytic Cap.,	100μF	10V		R729	1	RT05100140	Resistor	10Ω ±5%	¼W	
C711	1	DD16100010	Ceramic Cap.,	10pF ±10%			R730	1	RT05100140	Resistor	10Ω ±5%	¼W	
C712	1	DD16100010	Ceramic Cap.,	10pF ±10%			R731	1	GF05471140	Resistor	470Ω ±5%	¼W	
C713	1	DD16500010	Ceramic Cap.,	50pF ±10%			R732	1	GF05471140	Resistor	470Ω ±5%	¼W	
C714	1	DD16500010	Ceramic Cap.,	50pF ±10%			R733	1	GF05100140	Resistor	10Ω ±5%	¼W	
C715	1	DD16151010	Ceramic Cap.,	150pF ±10%			R734	1	GF05100140	Resistor	10Ω ±5%	¼W	
C716	1	DD16151010	Ceramic Cap.,	150pF ±10%			R735	1	GK05472020	Resistor	0.47Ω ±5%	2W	
C717	1	DD16101010	Ceramic Cap.,	100pF ±10%			R736	1	GK05472020	Resistor	0.47Ω ±5%	2W	
C718	1	DD16101010	Ceramic Cap.,	100pF ±10%			R737	1	GK05472020	Resistor	0.47Ω ±5%	2W	
C719	1	DF16104050	Film Cap.,	0.1μF ±10%			R738	1	GK05472020	Resistor	0.47Ω ±5%	2W	
C720	1	DF16104050	Film Cap.,	0.1μF ±10%			R739	1	RC10100120	Resistor	10Ω ±10%	¼W	
C721	1	EB22803550	Electrolytic Cap.,	2200μF	35V		R740	1	RC10100120	Resistor	10Ω ±10%	¼W	
C722	1	EB22803550	Electrolytic Cap.,	2200μF	35V		R741	1	RC10022120	Resistor	2.2Ω ±10%	¼W	
C723	1	EA10510090	Electrolytic Cap.,	1μF	100V		R742	1	RC10022120	Resistor	2.2Ω ±10%	¼W	
C724	1	EA10510090	Electrolytic Cap.,	1μF	100V		R743	1	RT05103140	Resistor	10KΩ ±5%	¼W	
H701	1	HT105641K0	Transistor	2SA564	(K)		R744	1	RT05103140	Resistor	10KΩ ±5%	¼W	
H702	1	HT105641K0	Transistor	2SA564	(K)		R745	1	GF05821120	Resistor	820Ω ±5%	¼W	
H703	1	HT313842C0	Transistor	2SC1384	(R, S)		R746	1	GF05821120	Resistor	820Ω ±5%	¼W	
H704	1	HT313842C0	Transistor	2SC1384	(R, S)		R747	1	RC00000120	Resistor Jamper			
H705	1	HT308281D0	Transistor	2SC828	(D)		R748	1	RC00000120	Resistor Jamper			
H706	1	HT308281D0	Transistor	2SC828	(D)		R749	1	RC00000120	Resistor Jamper			
J701	1	YP10001130	Plug				R750	1	RC00000120	Resistor Jamper			
J702	1	YP10001130	Plug				R751	1	RC00000120	Resistor Jamper			
J703	1	YP10001130	Plug				R752	1	RC00000120	Resistor Jamper			
J704	1	YP10001130	Plug										
J705	1	YP10001130	Plug										
J706	1	YP10001130	Plug										
J707	1	YP10001130	Plug										
L701	1	LC22720010	Choke Coil										
L702	1	LC22720010	Choke Coil										
M701	1	IN10060390	Lamp										
M702	1	IN10060390	Lamp										
R701	1	RT05104140	Resistor	100KΩ ±5%	¼W								
R702	1	RT05104140	Resistor	100KΩ ±5%	¼W								
R703	1	RT05102140	Resistor	1KΩ ±5%	¼W								
R704	1	RT05102140	Resistor	1KΩ ±5%	¼W								
R705	1	RT05204140	Resistor	200KΩ ±5%	¼W								
R706	1	RT05204140	Resistor	200KΩ ±5%	¼W								
R707	1	RT05393140	Resistor	39KΩ ±5%	¼W								
R708	1	RT05393140	Resistor	39KΩ ±5%	¼W								
R709	1	RT05154140	Resistor	150KΩ ±5%	¼W								
R710	1	RT05154140	Resistor	150KΩ ±5%	¼W								
R711	1	RT05562140	Resistor	5.6KΩ ±5%	¼W								
R712	1	RT05562140	Resistor	5.6KΩ ±5%	¼W								
R713	1	RT05391140	Resistor	390Ω ±5%	¼W								
R714	1	RT05391140	Resistor	390Ω ±5%	¼W								
R715	1	RT05101140	Resistor	100Ω ±5%	¼W								
R716	1	RT05101140	Resistor	100Ω ±5%	¼W								
R717	1	RT05272140	Resistor	2.7KΩ ±5%	¼W								
R718	1	RT05272140	Resistor	2.7KΩ ±5%	¼W								
R719	1	RT05391140	Resistor	390Ω ±5%	¼W								
R720	1	RT05391140	Resistor	390Ω ±5%	¼W								
R721	1	RT05682140	Resistor	6.8KΩ ±5%	¼W								
R722	1	RT05682140	Resistor	6.8KΩ ±5%	¼W								
R723	1	RT05822140	Resistor	8.2KΩ ±5%	¼W								
R724	1	RT05822140	Resistor	8.2KΩ ±5%	¼W								

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REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION
J808	1	YP10001130	Plug	RE09	1	RN05105140	Resistor 1M $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
J809	1	YP10001130	Plug	RE10	1	RN05105140	Resistor 1M $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
J810	1	YP10001130	Plug	RE11	1	RT05683140	Resistor 68K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
J811	1	YP10001130	Plug	RE12	1	RT05683140	Resistor 68K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
J812	1	YP10001130	Plug	RE13	1	RT05102140	Resistor 1K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
J813	1	YP10001130	Plug	RE14	1	RT05102140	Resistor 1K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
J814	1	YP10001130	Plug	RE15	1	RT05752140	Resistor 7.5K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
J815	1	YP10001130	Plug	RE16	1	RT05752140	Resistor 7.5K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
J816	1	YP10001130	Plug	RE17	1	RT05102140	Resistor 1K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R801	1	GJ05331030	Resistor 330 $\Omega$ $\pm$ 5% 3W	RE18	1	RT05102140	Resistor 1K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R802	1	GJ05221020	Resistor 220 $\Omega$ $\pm$ 5% 2W	RE19	1	RT05224140	Resistor 220K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R803	1	GF05560120	Resistor 56 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W	RE20	1	RT05224140	Resistor 220K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R804	1	RT05183140	Resistor 18K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W	RE21	1	RT05223140	Resistor 22K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R805	1	RT05104140	Resistor 100K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W	RE22	1	RT05223140	Resistor 22K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R806	1	GF05100120	Resistor 10 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W	RE23	1	RT05203140	Resistor 20K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
R807	1	GF05330120	Resistor 33 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W	RE24	1	RT05203140	Resistor 20K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
PE01	1	YD29561020	PE01 TONE AMP. BOARD	RE25	1	RT05273140	Resistor 27K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
	1	ZZ29561020	P.W. Board Assembly	RE26	1	RT05273140	Resistor 27K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
PE08	2	2933118020	Spacer, RE45	RE27	1	RT05682140	Resistor 6.8K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE01	1	DF17224050	Film Cap., 0.22 $\mu$ F $\pm$ 20%	RE28	1	RT05682140	Resistor 6.8K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE02	1	DF17224050	Film Cap., 0.22 $\mu$ F $\pm$ 20%	RE29	1	RT05822140	Resistor 8.2K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE03	1	EE10505010	Electrolytic Cap., 1 $\mu$ F 50V	RE30	1	RT05822140	Resistor 8.2K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE04	1	EE10505010	Electrolytic Cap., 1 $\mu$ F 50V	RE31	1	RT05123140	Resistor 12K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE05	1	DF16223050	Film Cap., 0.022 $\mu$ F $\pm$ 10%	RE32	1	RT05123140	Resistor 12K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE06	1	DF16223050	Film Cap., 0.022 $\mu$ F $\pm$ 10%	RE33	1	RM01040050	Variable Resistor 100K (B)
CE07	1	DF16223050	Film Cap., 0.022 $\mu$ F $\pm$ 10%	RE34	1	RM01040050	Variable Resistor 100K (B)
CE08	1	DF16223050	Film Cap., 0.022 $\mu$ F $\pm$ 10%	RE35	1	RT05225140	Resistor 2.2M $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE09	1	DF16102050	Film Cap., 1000pF $\pm$ 10%	RE36	1	RT05225140	Resistor 2.2M $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE10	1	DF16102050	Film Cap., 1000pF $\pm$ 10%	RE37	1	RT05683140	Resistor 68K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE11	1	EE10505010	Electrolytic Cap., 1 $\mu$ F 50V	RE38	1	RT05683140	Resistor 68K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE12	1	EE10505010	Electrolytic Cap., 1 $\mu$ F 50V	RE39	1	RT05103140	Resistor 10K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE13	1	EE47502510	Electrolytic Cap., 4.7 $\mu$ F 25V	RE40	1	RT05103140	Resistor 10K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE14	1	EE47502510	Electrolytic Cap., 4.7 $\mu$ F 25V	RE41	1	RT05101140	Resistor 100 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE15	1	EQ47501610	Electrolytic Cap., 4.7 $\mu$ F 16V NP	RE42	1	RT05101140	Resistor 100 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE16	1	EQ47501610	Electrolytic Cap., 4.7 $\mu$ F 16V NP	RE43	1	RT05104140	Resistor 100K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
CE17	1	EA10705090	Electrolytic Cap., 100 $\mu$ F 50V	RE44	1	RT05104140	Resistor 100K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
HE01	1	HT313282A0	Transistor 2SC1328 (S, T)	RE45	1	RT05101140	Resistor 100 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
HE02	1	HT313282A0	Transistor 2SC1328 (S, T)				PH01 MUTING, HI FILTER BOARD
HE03	1	HT107223A0	Transistor 2SA722 (S, T, U)	PH01	1	YD29561060	P.W. Board
HE04	1	HT107223A0	Transistor 2SA722 (S, T, U)		1	ZZ29561060	P.W. Board Assembly
HE05	1	HT313281T0	Transistor 2SC1328 (T)	CH01	1	DF16682050	Film Cap., 0.0068 $\mu$ F $\pm$ 10%
HE06	1	HT313281T0	Transistor 2SC1328 (T)	CH02	1	DF16682050	Film Cap., 0.0068 $\mu$ F $\pm$ 10%
JE01	1	YP10001130	Plug	JH01	1	YP10001130	Plug
JE02	1	YP10001130	Plug	JH02	1	YP10001130	Plug
JE03	1	YP10001130	Plug	JH03	1	YP10001130	Plug
JE04	1	YP10001130	Plug	JH04	1	YP10001130	Plug
JE05	1	YP10001130	Plug	JH05	1	YP10001130	Plug
JE06	1	YP10001130	Plug	JH06	1	YP10001130	Plug
				JH07	1	YP10001130	Plug
JE07	1	YP10001130	Plug	RH01	1	RT05472140	Resistor 4.7K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
JE08	1	YP10001130	Plug	RH02	1	RT05472140	Resistor 4.7K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
JE09	1	YP10001130	Plug	RH03	1	RT05225140	Resistor 2.2M $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
JE10	1	YP10001130	Plug	RH04	1	RT05225140	Resistor 2.2M $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
RE01	1	RT05472140	Resistor 4.7K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W	SH01	1	SP02020080	Push Switch
RE02	1	RT05472140	Resistor 4.7K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W				
RE03	1	RT05474140	Resistor 470K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W				
RE04	1	RT05474140	Resistor 470K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W				
RE05	1	RT05102140	Resistor 1K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W				
RE06	1	RT05102140	Resistor 1K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W				
RE07	1	RT05223140	Resistor 22K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W				
RE08	1	RT05222140	Resistor 2.2K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W				

N : For Scandinavia

REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION	REF. DESIG.	Q'TY N	PART NO.	DESCRIPTION
<b>PT01 LOUDNESS, MONITOR BOARD</b>				JR08	1	YP10001130	Plug
PT01	1	YD29561050	P.W. Board	JR09	1	YP10001130	Plug
	1	ZZ29561050	P.W. Board Assembly	JR10	1	YP10001130	Plug
CT01	1	DF16273050	Film Cap., 0.027 $\mu$ F $\pm$ 10%	JR11	1	YP10001130	Plug
CT02	1	DF16273050	Film Cap., 0.027 $\mu$ F $\pm$ 10%	JR12	1	YP10001130	Plug
CT03	1	DD16121010	Ceramic Cap., 120pF $\pm$ 10%	C001	1	DK17103010	Ceramic Cap., 0.01 $\mu$ F $\pm$ 20%
CT04	1	DD16121010	Ceramic Cap., 120pF $\pm$ 10%	C002	1	DK17103010	Ceramic Cap., 0.01 $\mu$ F $\pm$ 20%
JT01	1	YP10001130	Plug	C004	1	EA47601090	Electrolytic Cap., 47 $\mu$ F 10V
JT02	1	YP10001130	Plug	C006	1	DK18403020	Ceramic Cap., 0.04 $\mu$ F 50V
JT03	1	YP10001130	Plug	F001	1	FS10160800	Fuse, 1.6A 250V SEMKO
JT04	1	YP10001130	Plug				
JT05	1	YP10001130	Plug	F003	1	FS10250800	Fuse, 2.5A 250V SEMKO
JT06	1	YP10001130	Plug	F004	1	FS10250800	Fuse, 2.5A 250V SEMKO
				F005	1	FS10315800	Fuse, 3.15A 250V SEMKO
JT07	1	YP10001130	Plug	J001	1	YT01040150	Terminal
JT08	1	YP10001130	Plug	J002	1	YL01020030	Terminal
JT09	1	YP10001130	Plug	J003	1	YT02010090	Terminal
JT10	1	YP10001130	Plug	J004	1	YT02040080	Terminal
JT11	1	YP10001130	Plug	J005	1	YT02040080	Terminal
RT01	1	RT05153140	Resistor 15K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W	J006	1	YT01010050	Terminal
RT02	1	RT05153140	Resistor 15K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W	J007	1	YJ01000980	Jack
RT03	1	RT05683140	Resistor 68K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W				
RT04	1	RT05683140	Resistor 68K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W	J008	1	YT03040060	Terminal
RT05	1	RC00000120	Resistor 0 $\Omega$	J009	1	YT03040060	Terminal
RT06	1	RC00000120	Resistor 0 $\Omega$	J010	1	YJ08000190	Jack
ST01	1	SP02020080	Push Switch	J012	1	YJ08000220	Jack
<b>PZ01 DIAL LAMP BOARD</b>				J013	1	BY03110010	Plug
PZ01	1	YD28860160	P.W. Board	J014	1	YP04000560	Plug
	1	ZZ28891160	P.W. Board Assembly	J015	1	YT01010050	Terminal
JZ01	1	YJ08000170	Jack	J017	1	YJ08000090	Jack
JZ02	1	YJ08000170	Jack	J018	1	YJ08000090	Jack
JZ03	1	YJ08000170	Jack	J019	1	YJ08000090	Jack
JZ04	1	YJ08000170	Jack				
JZ05	1	YJ08000170	Jack	L001	1	LC11540040	Choke Coil
JZ06	1	YJ08000170	Jack	L002	1	LF11200480	Ant Coil
JZ07	1	YJ08000170	Jack	L003	1	LS18603030	Power Transistor,
JZ08	1	YJ08000170	Jack	L004	1	LC13320020	Choke Coil
JZ09	1	YJ08000170	Jack	M001	1	IN10080340	Lamp
JZ10	1	YJ08000170	Jack	M003	1	IN10080430	Lamp, For Meter Lamp
				M004	1	IM11042380	D.C. Meter, Gold Dial
JZ12	1	YP10001130	Plug	R001	1	GF05102120	Resistor 1K $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
JZ13	1	YP10001130	Plug	R002	1	GF05151120	Resistor 150 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
JZ14	1	YP10001130	Plug	R003	1	GF05151120	Resistor 150 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
MZ01	1	IN10080070	Lamp, 8V 200mA				
MZ02	1	IN10080070	Lamp, 8V 200mA	R004	1	GJ05331010	Resistor 330 $\Omega$ $\pm$ 5% 1W
MZ03	1	IN10080070	Lamp, 8V 200mA	R005	1	GJ05331010	Resistor 330 $\Omega$ $\pm$ 5% 1W
MZ04	1	IN10080070	Lamp, 8V 200mA	R006	1	RM02540220	Variable Resistor, 250K $\Omega$ Master
MZ05	1	IN10080070	Lamp, 8V 200mA	R007	1	RX05040030	Variable Resistor, 500K $\Omega$ Balance
				R009	1	GF05510120	Resistor 51 $\Omega$ $\pm$ 5% $\frac{1}{4}$ W
<b>PR01 FUSE BOARD</b>				S001	1	SR10050110	Rotary Switch
PR01	1	YD29750010	P.W. Board	S002	1	SR02040070	Rotary Switch
	1	ZZ29750010	P.W. Board Assembly	S003	1	SP02020230	Push Switch
FR01	1	FS10350800	Fuse, 3.5A 250V SEMKO	W001	1	ZC01803020	A.C. Power Cord AC Cord
FR02	1	FS10100800	Fuse, 1.0A 250V SEMKO				
FR03	1	FS10100800	Fuse, 1.0A 250V SEMKO				
JR01	1	YJ08000200	Jack				
JR02	1	YJ08000200	Jack				
JR03	1	YJ08000200	Jack				
JR04	1	YJ08000200	Jack				
JR05	1	YJ08000200	Jack				
JR06	1	YJ08000200	Jack				
JR07	1	YP10001130	Plug				

## AMPLIFIER SECTION

RATED POWER OUTPUT, MINIMUM CONTINUOUS AVERAGE POWER	15 Watts
PER CHANNEL, BOTH CHANNELS DRIVEN	
POWER BAND	40 Hz to 20 kHz
TPTAL HARMONIC DISTORTION	0.8%
LOAD IMPEDANCE	8 $\Omega$
I.M.Distortion	0.8%
(I.H.F. method, 60 Hz and 7 kHz mixed 4 : 1 at rated power output)	
Damping Factor	40

## PREAMPLIFIER SECTION

### Phono

Input Overload at 1 kHz	100 mV
Equivalent Input Noise	2.5 $\mu$ V
Dynamic Range	92 dB
(Dynamic Range is the ratio of input overload to equivalent input noise)	
Input Sensitivity	2.2 mV
Input Impedance	47 k $\Omega$
Frequency Response, RIAA	$\pm 1$ dB
Signal-to-Noise Ratio	74 dB
(at rated output and 7.75 mV input)	
High Level (Aux and Tape)	
Input Sensitivity	150 mV
Input Impedance	100 k $\Omega$
Frequency Response (includes power amp.)	20 Hz to 60 kHz $\pm 1.5$ dB
	40 Hz to 20 kHz $\pm 0.5$ dB
Signal-to-Noise Ratio	85 dB
(ref. to rated output and 755 mV input)	
Output Levels	
Tape Out (ref. 7.75 mV at Phono inputs)	525 mV
Output Impedance	
Tape Out	3 k $\Omega$

## FM TUNER SECTION

### Sensitivity

Sensitivity (DIN)	1.5 $\mu$ V (8.7 dBf)
IHF 50 dB Quieting (mono)	4.0 $\mu$ V (17.3 dBf)
(stereo)	50 $\mu$ V (39.2 dBf)
Quieting Slope (Mono)	
RF Input for 30 dB Quieting	2.2 $\mu$ V (12 dBf)
5 $\mu$ V (19 dBf)	48 dB
10 $\mu$ V (25 dBf)	55 dB
50 $\mu$ V (39 dBf)	63 dB
1000 $\mu$ V (65 dBf)	68 dB
Distortion (Mono)	
at 50 dB Quieting, 1000 Hz	0.7%
at 65 dBf (1000 $\mu$ V), 1000 Hz	0.4%
Distortion (Stereo)	
at 50 dB Quieting, 1000 Hz	0.8%
at 65 dBf (1000 $\mu$ V), 1000 Hz	0.7%
Hum and Noise	
at 65 dBf (1000 $\mu$ V)	
Mono	68 dB
Stereo	55 dB
Frequency Response	
30 Hz to 15 kHz	
Mono	$\pm 1.5$ dB
Stereo	$\pm 2.0$ dB



Capture Ratio	
at 45 dBf ( 100 $\mu$ V) .....	4.0 dB
at 65 dBf (1000 $\mu$ V) .....	3.0 dB
Alternate Channel Selectivity .....	50 dB
Spurious Response Rejection .....	80 dB
Image Response Rejection .....	50 dB
I.F. Rejection (Balanced) .....	70 dB
A.M. Suppression .....	45 dB
Stereo Separation	
100 Hz .....	35 dB
1000 Hz .....	38 dB
10 kHz .....	30 dB
Subcarrier Rejection .....	55 dB

#### AM TUNER SECTION

IHF Usable Sensitivity .....	25 $\mu$ V
Distortion (THD), 30% Modulation .....	0.7%
Signal-to-Noise Ratio .....	49 dB
Frequency Response ( $\pm$ 3 dB) .....	40 Hz to 2.3 kHz
Alternate Channel Selectivity .....	40 dB
Image Rejection .....	37 dB
Spurious Response Rejection .....	67 dB
I.F. Rejection .....	40 dB

#### GENERAL

Power Requirements .....	220 V $\sim$ , 50 Hz
(This unit can be converted by a qualified technician to operate on 110/120/240 V $\sim$ , 50/60 Hz)	
Power consumption at rated output, both channels operating (8 $\Omega$ loads) .....	95 Watts
Idling power (volume control at zero) .....	25 Watts
Dimensions	
Panel Width .....	17-3/8 inches
Panel Height .....	5-3/8 inches
Depth .....	11-1/2 inches
Weight	
Unit alone .....	23 lbs.
Packed for shipment .....	29.6 lbs.

## VOLTAGE CONVERSION

This Model is equipped with a universal power transformer to permit operation at 110, 120, 220 and 240 V AC 50/60 Hz.

To convert the unit to the required voltage, set the plug as illustrated so that you can adjust the voltage as required.

**CAUTION: DISCONNECT POWER SUPPLY CORD FROM AC OUTLET BEFORE CONVERTING VOLTAGE.**

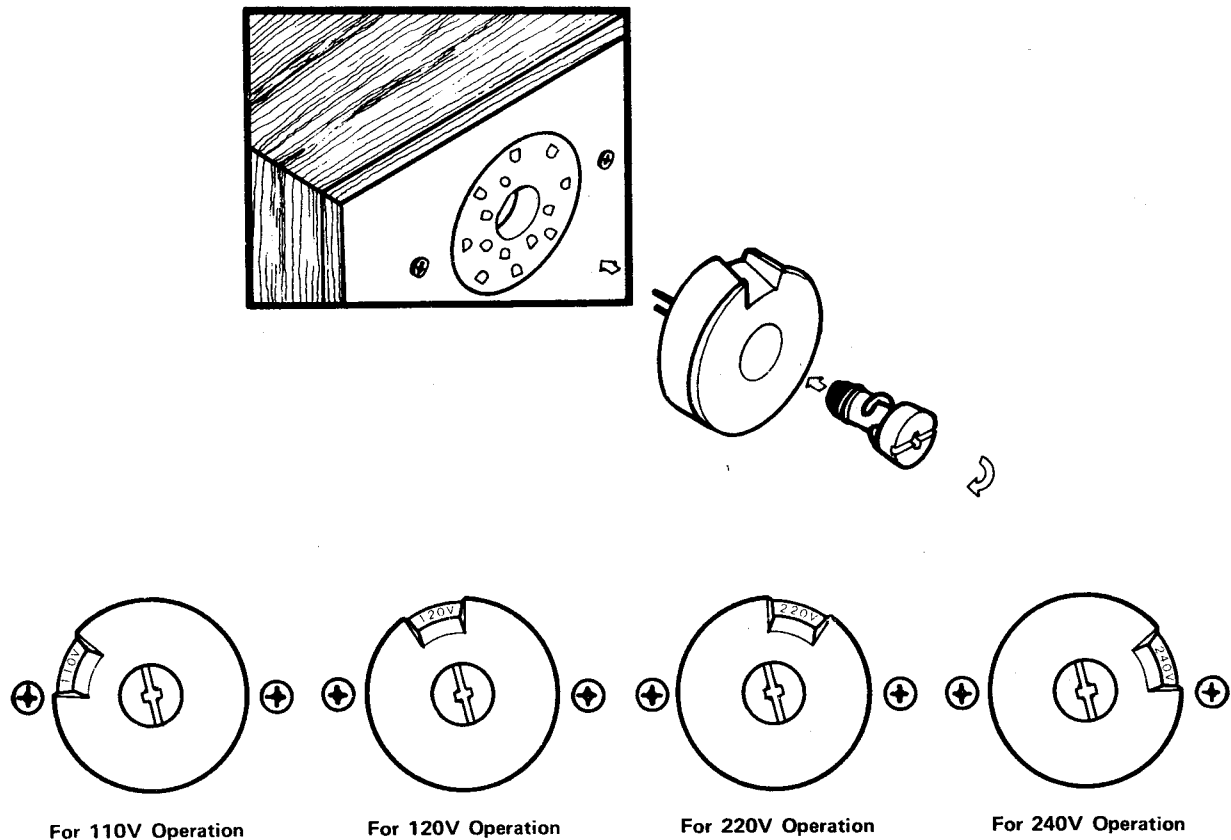


Figure 25. Voltage Conversion Chart

Instruction for the use in the range other than specified in FTZ codes

Achtung für die Leute, die in dem Gebiet wohnen,  
wo die FTZ-Bestimmungen vorherrschend sind.

Sollte das Gerät auch für Frequenzen ausserhalb des in den FTZ-Bestimmungen angegebenen Bereiches empfangebereit sein, bitten wir, den Bereich durch Nachstellen des Kernes in der Oszillatorschule (in der Abbildung mit "FTZ" gekennzeichnet) so zu korrigieren, dass er den Bestimmungen entspricht.

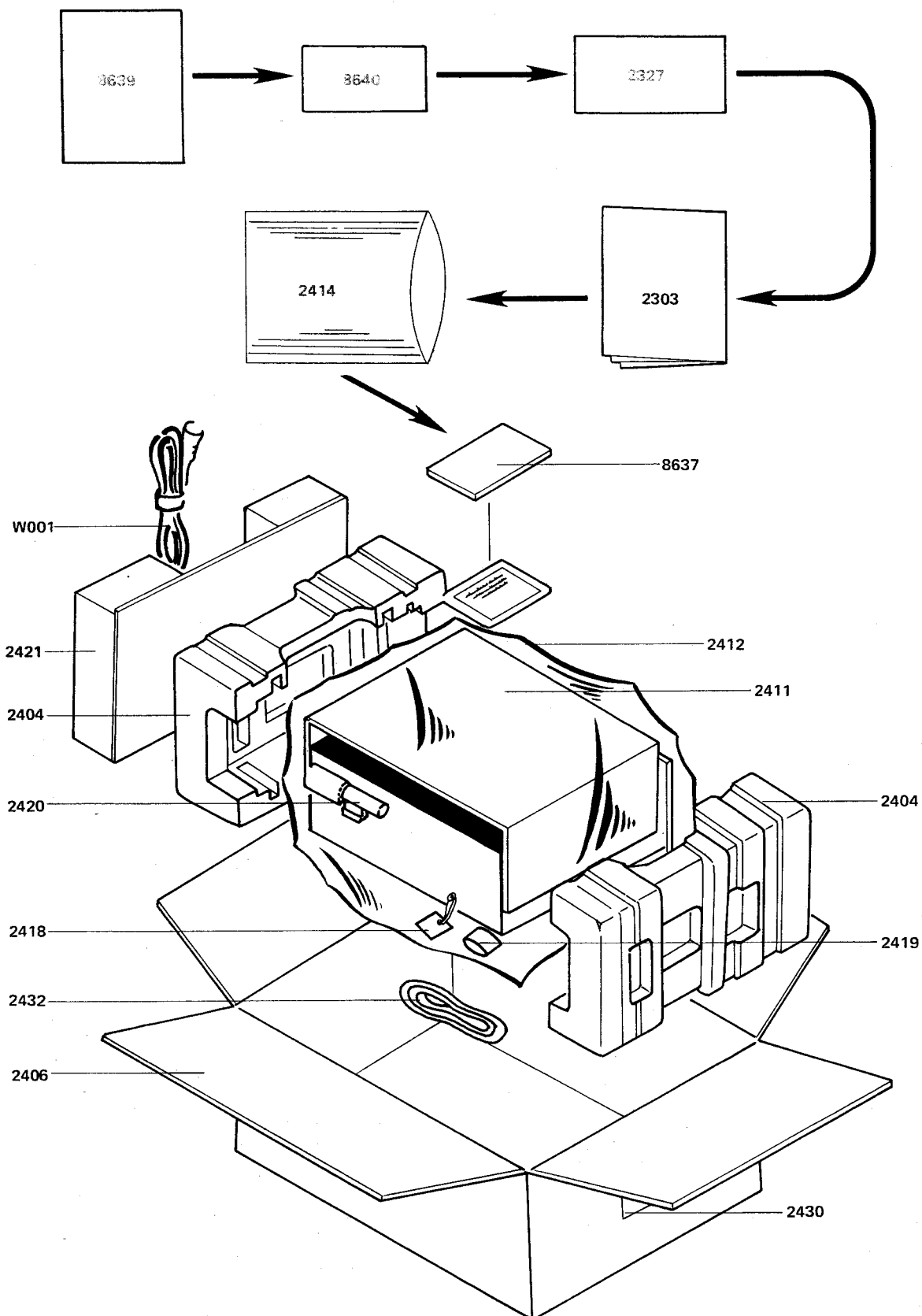


Figure 26. Packing